Clinical Medicine

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Reference: 1. Pocock, D. G.: Personal communication.

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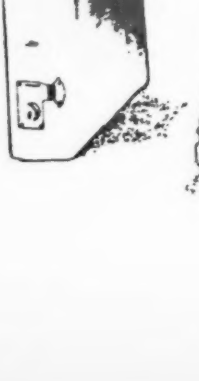

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EDITORIAL

A Simple Measure for Prevention of Coronary and Cerebral Thrombosis

A total of 8,000 men have followed this simple regime for a period of years, none of whom have developed a detectable coronary or cerebral thrombosis

JAMES M. NORTHINGTON, M.D., *Editor*

Everyone is concerned about the great loss of life from coronary heart disease and apoplectic strokes. A California doctor has written an article which ascribes powers of prevention of these diseases to a commonly used, cheap, safe drug which is administered in very small dosage.[1]

The substance of what this doctor has to say is passed on to the readers of *Clinical Medicine*.

"Increasing emphasis on atherosclerosis as a factor in cardiovascular disease has blinded many physicians to the fact that thrombosis is due primarily to an increase in the coagulation rate of the blood. I suggest a simple but surprisingly effective means of altering the coagulation rate so as to forestall secondary attacks and also prevent initial thrombotic attacks.

Coagulation of blood is a fairly simple process. A "starter" of broken-down or injured lipoprotein is required. Such "starter" material is present in abundance in the blood stream for hours after a meal heavy in lipoprotein, provided the lipoprotein is not used up in exercise or physical labor as rapidly as it is absorbed from the digestive tract. For this reason, persons who do physical

1. Craven, L. L., *Mississippi Valley M. J.*, 78:213-215, 1956.

labor are far less likely to suffer thrombotic attacks than are others. Another source of injured protein is the vessel wall from which an atheromatous plaque has broken loose.

ALTERATION OF COAGULATION RATE

A mild anticoagulant is needed. Neither heparin, dicumarol nor the more recently employed phenylindanedoine preparations meets the need for general use among large numbers in the population. Use of these anticoagulants is hazardous without a constant and careful check on prothrombin rate. For general use, a substance with less pronounced, yet predictable, anticoagulant action is required.

Salicylic acid and dicumarol are related structurally and are similar in action. The suggestion has been made that dicumarol effects its specific action by degradation to salicylic acid in the liver.

Ample evidence exists of aspirin's anticoagulant effect: The exodontist's patients have experienced hemorrhage after tooth extraction because aspirin in the blood stream precluded formation of the necessary clot within the emptied socket. Inquire whether the patient has taken aspirin or aspirin-containing compounds and, if such is the case, correct the anticoagulant tendency by administration of vitamin K. A similar query is routine wtih some surgeons.

Self-administration of aspirin by persons hitherto well-controlled under long-term dicumarol therapy occasionally has resulted in dangerous hemorrhage. Physicians who give aspirin or any salicylates over a period of weeks or months adjust dicumarol dosage to compensate for aspirin's adjuvant effects.

Excessive menstrual bleeding
women who are receiving sm
doses of aspirin usually can be co
trolled by withholding that drug an
substituting some other analges
preparation (provided the bleedin
is not primarily due to the presen
of an intra-uterine tumor).

EXPERIENCE WITH ASPIRIN

In 40 years as a general practition
er, in the past few years more of
geriatrician, I have been especiall
interested in the possibility tha
some simple and harmless agent ma
be effective against the two majo
causes of death and disability. Whe
aspirin appeared to offer such prote
tion, I urged my friends and pa
tients to adopt the practice of tak
ing aspirin, one or two 5 grain tab
lets daily. The practice could do n
harm; it might prove life-saving
Seven years ago, I reported my re
sults with aspirin prophylaxis in 40
persons. Four years ago, I publishe
a summary of effects of aspirin ad
ministration in 1,465 persons. T
date, 8,000 men have adopted a re
gimen of 5 to 10 grains of aspirin
daily. Not a case of detectable cor
onary or cerebral thrombosis ha
occurred among patients who have
faithfully adhered to this regimen.
True, the patients who have adopted
aspirin prophylaxis are, as a rule, in
better than average health and have
not had previous symptoms o
thrombosis. However, many of these
men are now somewhat obese, most
of them wealthy or moderately so,
occupants of executive positions, and
frequenters of expensive eating
places—the sort of men prone to
"heart attacks."

Nine of the patients who have fol
lowed the prescribed regimen faith
fully have died of what have ap

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peared to be "heart attacks." *In each instance cause of death has been proved at autopsy to be a ruptured aortic aneurysm, not thrombotic occlusion of a coronary vessel.*

The mechanism which brings about occlusion of the coronary arteries also is responsible for thrombosis of cerebral arteries—a much commoner finding than blockage of the coronary vessels. Cerebral thromboses recently were brought to the front of the public's consciousness by Dr. Alvarez' writings on "Little Strokes." Autopsy evidence has disclosed that cerebral thromboses, not cerebral hemorrhages, are responsible for the majority of "strokes" which progressively handicap many older persons. Alvarez confesses that he is more afraid of cerebral thrombosis than of cancer. Although patients who have faithfully taken daily doses of aspirin may have suffered minor strokes which have gone undetected, no major stroke has occurred in the 8,000 patients who have followed this regimen.

CORONARY INSUFFICIENCY

Anticoagulants are equally successful in treating patients with coronary insufficiency. Despite narrowed lumens of their coronary arteries, patients with coronary insufficiency are enabled to live for years until they succumb to conditions unrelated to coronary occlusion, provided continued anticoagulant treatment prevents the formation of clots, with blocking of narrowed vascular pathways and cutting off nourishment of vital structures.

In the past few years, I have begun to wonder whether the virtual freedom from "heart attacks" enjoyed by women during their childbearing years is due in some measure—perhaps even to an important degree—to self-medication with aspirin for headaches, premenstrual tension following over-eating, and so forth.

To any physician who has witnessed the results of long-term aspirin administration—who has seen his patients freed of their fear of possible "heart attacks" at a time when their contemporaries are struck down with coronary and cerebral thrombosis, the evidence speaks for itself.

DICUMAROL POSSIBILITIES

Recently I have experimented with the oral administration of small amounts of dicumarol, 10 mg. per day, for prophylaxis of thrombosis. I have observed only 45 persons who have taken dicumarol; however, dicumarol in this dosage apparently has an anticoagulant effect equal to that of aspirin in the dosage employed for this purpose. It may turn out that dicumarol, given in this way, may be used to replace aspirin administration in persons intolerant of or hypersensitive to the salicylates."

ORIGINAL ARTICLES

The Challenge of Atherosclerosis

Atherosclerosis is not inexorable; it is an acquired disease that is potentially preventable, and is by no means completely irreversible

O. P. J. FALK, M.D., *Saint Louis, Missouri*

Atherosclerosis is the most devastating form of arteriosclerosis. It is the cause of angina pectoris, coronary thrombosis, and the majority of cerebral vascular accidents. The cardiac and cerebral complications comprise the most important causes of death in the United States today. Atherosclerosis is not inevitable with advancing age and appears to be a reversible process. It seems to be affecting younger men with each succeeding generation.

Atherosclerosis may be an acquired disease, even though a hereditary influence is evident. There is much evidence that faulty lipid metabolism and the sex hormones play an important role. The cholesterol content of atherosclerotic plaques and blood often parallels the occurrence and severity of the disease. The deposition of a cholesterol plaque into the subintimal area may induce slowing up and eddying of the blood stream, thus encouraging thrombosis. Atheromatosis is the type of arterial disease that causes the syndrome of coronary and cerebral thrombosis, occlusive peripheral vascular disease, mesenteric thrombosis, and vascular accidents in the pancreas and in the eye.

ETIOLOGY

There is no single known cause of atherosclerosis. It is influenced by heredity, dietary habits, metabolic

disorders, the stress and strain of living, diabetes, hypothyroidism and hypertension, in women particularly. It seems that sex hormone influence accounts for its great predominance among males. Atherosclerosis represents the sum total of the man himself with his fat-metabolizing mechanism, his inherited vascular tree, and his tendency to metabolic disease, such as diabetes and hypothyroidism. The pathogenesis begins with an inherent and probably hereditary metabolic defect in the artery. It is particularly accelerated by nutritional and endocrine factors.

A balanced plan of living, moderation in all things, low-fat intake and sensible regular exercise offer protection against atherosclerosis. We must bear in mind that enough is sometimes too much when it comes to eating, drinking, smoking, working or even playing.

MANAGEMENT

Certain significant leads are offered by research and clinical investigation in this field. If the implication of certain animal experiments, particularly observations on cockerels by Katz,[1] has any inference in the human, it may well be that the ultimate effects of atherosclerosis can be deferred, if not prevented entirely, by utilization of certain observations reported on the influence of sex hormones on this condition.

HORMONES

Female hormones seem to be able to change the balance of lipoproteins in the blood toward a higher proportion of smaller, more stable molecules. This function is apparently related to the biologic need for ef- cient transport of large amounts fat in the female during pregnan and lactation.

Post mortems on our soldiers (their early twenties) who we killed in the Korean conflict show beginning atheromatous changes 77%.[2] Clinical symptoms and sig rarely develop until after the mi thirties. If, during this dormant i terim, as well as beyond, we c develop some plan of preventi control, we will be taking a tr mendous step toward cutting do one of the greatest threats to t health and life of the male in h post-prime years. There should be clinical awareness of the prevalen of atherosclerosis, so that we wi be alerted to an earlier recogniti of the process before one of th more dramatic complications ma fests itself.

The investigations of Katz[1] and Barr[3] appear to implicate male ho mones in the production of, an estrogens in the protection agains atherosclerotic disease; and to wa rant the judicious use of oral estr gens in the long-term manageme of coronary artery disease. Wheth feminizing influence of estrogen ma be neutralized by oral methyl-testo terone, without lessening the pr tective effect of estrogen upon th intima of the arteries against th deposition of cholesterol, is as yet i question.

LOW-FAT DIET

As to disturbance in lipid metab olism, current thought favors a die low in fat. Forty percent of th calories in the typical United State diet are derived from the fat in gested. This can readily be brough

1. Katz, Louis M., *Ann. Int. Med.*, 43:5, 1955.

2. Enos, William F., et al, *J.A.M.A.*, 158:11, 19
3. Barr, David P., *Circulation*, 8:11, 1953.

own to 25%, a figure in line with he fat in the Italian diet, which Ancel Keyes reported as averaging 0% of their total.[4] Italians have a ar lower incidence of coronary dis- ase than do English-speaking peo- le. During the war, when fats were difficult to obtain in central Europe, significant drop in the incidence of coronary disease was noted both n Sweden and Germany where careful records were kept. The per- centage later rose after fats became available.

REVERSIBILITY

It is conceded today that lipid metabolism is intimately concerned with the development of atheromatous lesions.

Lowering of blood cholesterol can be effected by several factors, diet being the most important. With elevated blood cholesterol, the incidence of atheromatous lesions is much higher. There is some sort of a biologic link between hypercholesterolemia and atheroma formation. There is a connection between the lipid intake and the deposition of cholesterol in the intima. It appears that the quality as well as the quantity of fat is significant. Animal fats and hydrogenated vegetable oils do the most damage. The unsaturated vegetable fats appear to be relatively harmless, hence:

1. All fats of animal origin—butter, cream, fats in meat, lard, etc.—should be minimized.

2. Olive and cotton-seed oil apparently contribute more to cholesterol lipoprotein disturbances than corn, soy bean or fish oil.[5] Other factors which cause increased cholesterol levels are total caloric intake, particularly when it has led to a recent weight increase, a very low carbohydrate intake, a deficiency in vitamin B complex, and a sedentary life.

4. Keys, Ancel, *Minnesota Med.*, 38:11, 1955.
5. Deuel, H. J., "The Lipids," Interscience Publishers, 1951.

EXERCISE

The cycle of plasma filtration by blood vessels across the interstitial tissue spaces appears to be kept functioning more actively by physical exercise, which may also prevent particles of fat from getting stuck in the blood vessel-wall filter. We emphasize the influence of such metabolic disturbances as diabetes, hypothyroidism, hypercholesterolemia, nephrosis, etc. In any protective dietary program, one must see that the fat is skimmed off soups and gravies and that deep frying is done with corn oil, and salad dressing made from the same rather than olive oil, mayonnaise, etc. We must always bear in mind that the liver can synthesize many times more cholesterol than we ingest, so that the intake of cholesterol-containing foods *per se* is not as important as the total fat content of the diet.

OTHER MEASURES

Salutary in the management of the presymptomatic stage as well as of the clinical expressions of atherosclerosis are:

1. A general reduction in calories so that the individual is not allowed to get fat. George Calver, physician to Congress, stated he found this plan to cut down the incidence of coronary disease among our legislators.[6]

2. In the pre-symptomatic stage, regular exercise is of great value. We, as a people, are not walking enough. There is too much motor-

6. Calver, George, Personal Communication.

car and soft living in general for our optimal vascular welfare.

3. The lipotropic agents such as choline, inositol and methionine have been investigated carefully and found to have no consistent influence on cholesterol levels or on the clinical manifestations of atherosclerotic disease.[7]

4. Thyroid extract may help reduce blood cholesterol. Whether or not this represents a salutary protective influence we do not know; our inclination is to give it the benefit of the doubt in the presymptomatic phase because of the frequency with which we see hypercholesterolemia associated with coronary artery disease.

A balanced plan of living and moderation in all things are worthy objectives. I again invoke my "four horsemen,—Fat, Furor and the pursuit of Fame and Fortune," as representing the greatest threats to our typical fellow-countryman's cardiac welfare.[8] The early recognition and effective management of atherosclerosis present a challenge to further investigation of the physiologic mechanism and biologic implication of atheromatous disease. They hold untold potential benefit to mankind in general. We do know atherosclerosis is not inexorable with the slow erosion of Time, like arteriosclerosis. It is an acquired disease that may be preventable and is by no means always non-reversible.

EARLY CLINICAL RECOGNITION

Physical signs highly suggestive of early or advancing atherosclerotic changes include diminished pulsations of the lower peripheral vessels, particularly elevation pallor in the legs and a history of intermittant claudication. Another suggestive sign is change in the aortic sounds. A slight to moderate systolic murmur at the aortic first where actual stenosis is ruled out particularly when associated with a more or less hollow accentuation of the A2 sound, speaks for a somewhat dilated and inelastic aorta. This is likely to be associated with atherosclerotic changes.

STROKES

The occurrence of minor as well as major strokes is often indicative of advancing atherosclerotic disease, although in the presence of severe hypertension, particularly in a plethoric individual, hemorrhage often occurs from a vessel damaged by the arteriosclerosis of advancing age. Any expression of coronary disease, be it angina of effort, acute coronary failure (or "insufficiency") and actual coronary occlusion with or without myocardial infarction, is nearly always evidence of atheromatous disease in the coronary vessels. Atheromatous changes in the mesenteric or pancreatic vessels are not readily recognized, but suspicion maintained at a high level makes it mandatory to investigate the background of any such case as to associated findings elsewhere in the body, heredity, body build, dietary habits, antecedent history and blood cholesterol levels.

A balanced plan of living and the practice of moderation in all things are essential to overall protection.

7. Falk, O. P. J., *Illinois M. J.*, 102:4, 1952.
8. Falk, O. P. J., *Mississippi Valley M. J.*, 77:3,1955.

Non-Specific Therapy in Allergy: A Follow-Up Report

An allergenic extract of Toxicodendron quercifolia brought rapid relief from allergic manifestations; the action seems to be non-specific, and no skin tests are required

JOSEPH ROVITO, M.D.,* *Morton, Pennsylvania*

Two years ago we started using a specially prepared extract of Toxicodendron quercifolia† for the treatment of allergic states. The early results were so encouraging that we published a preliminary report of 12 cases.[1] This is a follow-up report on that group, all of whom were originally treated at least 18 months ago. We have summarized the important information in the chart.

COMMENTS

Although all of these patients improved promptly or had complete relief of symptoms after the initial course of injections, a casual inspection of the chart might seem to suggest that nine — or possibly ten (R.D.) — had relapsed. This impression is not borne out by the facts.

In our original report, we selected the symptom or symptoms for which the patient first sought treatment; we did not attempt to list other allergic manifestations. Therefore we were not surprised when some of these patients returned later with other symptoms of an allergic nature. It has been our impression that *best* results are obtained if the person is exposed to the offending allergen while receiving the injections;

* Yale Avenue Medical Center, Morton, Pennsylvania.
† Anergex, *Mulford Colloid Laboratories*, Philadelphia 4, Pa.
1. Rovito, J., *Clin. Med.*, 2:1009,1955.

PT.	AGE & SEX	FIRST VISIT	DIAGNOSIS	IMMEDIATE RESULTS	FOLLOW-UP RESULTS
E.M.	20 F	8/26/54	Bullous dermatitis (Pemphigus)	Relieved within one week.	No recurrence.
F.F.	12 M	8/30/54	Hay fever, 5 yrs. Ragweed	Relieved for rest of season.	Very mild symptoms 8/55, relieved by 3 injections.
J.diL.	15 M	9/ 3/54	Ragweed hay fever. Eczematoid dermatitis, face.	Relieved for season. Cleared completely.	Mild symptoms 9/55, relieved by one injection. No recurrence of dermatitis.
H.McT.	31 M	9/ 7/54	Ragweed hay fever since childhood.	Relieved for rest of season.	Symptoms recurred in 1955; unable to take more treatments.
D.G.	32 F	9/17/54	Eczema, auditory canals, infected. Penicillin reaction (history).	Rapid clearing of lesions. Penicillin after second dose; no reaction.	Recurrence 6/55, with rhinitis, again in 5/56. Prompt relief after 3 injections. No reactions to penicillin.
B.A.	34 F	9/23/54	Ragweed hay fever since childhood.	Relieved for rest of season.	Rhinitis 5/55 and 9/55. Each episode relieved by 3 injections. May, 1956 "too mild to require needles."
R.D.	36 M	9/29/54	Allergic to milk and cheese. Penicillin reaction (history). Acute pyelitis.	Eats freely with no discomfort. No reaction to penicillin given for urinary infection.	Occasionally has slight rash; no treatment sought. Penicillin for bronchitis twice; no reaction.
S.W.	11 M	10/11/54	Asthma due to food allergy.	No asthma. Diet unrestricted.	Eats all foods. Mild rhinitis and wheezing 8/55, relieved by 4 injections. No symptoms in 1956.
P.W.	9 M	10/18/54	Food allergy—GI symptoms.	No symptoms. Diet unrestricted.	No recurrence of GI symptoms. Mild rhinitis, fall of 1955. No treatment required.
J.diL.	17 M	11/ 9/54	Eczema of face with infection.	Cleared completely.	Recurrence 8/55. Cleared after 4 injections. Very slight recurrence in 5/56. Cleared rapidly.
E.D.	8 mo. F	12/11/54	Eczema; bloody diarrhea; food sensitivities.	Diarrhea stopped. Eczema cleared.	Unrestricted diet. No recurrence of eczema or diarrhea.
R.C.	4 M	12/20/54	Asthma; food sensitivity.	Unrestricted diet. No asthma.	Slight wheezing with respiratory infections only, normal at all other times. Diet unrestricted.

therefore treatment during the fall, for example, would not provide maximal protection against the spring pollens. The charts should be examined with these points in mind.

Of the four patients treated for ragweed hay fever, all had symptoms the following year (1955), but in three, they were very mild and disappeared after one to three "booster" injections. The fourth patient did not return—he reported that he "decided to put up with the hay fever," suggesting symptoms milder than those for which he originally sought relief.

Of four patients who were treated for eczema, two have had no recurrences, one had mild symptoms in the spring of 1955 and 1956, and the fourth developed small lesions in August, 1955 and May, 1956. Pollens (grass and ragweed) may have been a factor in these two cases; both cleared rapidly after additional doses of the extract.

Five patients, four of them children, had asthma or gastrointestinal symptoms which had been attributed to foods. They had been on restricted diets; now they eat whatever they wish. All seem to have been completely relieved of their food sensitivities, but two had mild respiratory symptoms during the 1955 ragweed pollen season and one had some dyspnea and wheezing during respiratory infections. Here again it is probable that multiple sensitivities were present.

DISCUSSION

Since our preliminary report, we have continued to give this extract to patients with food sensitivities, allergic asthma, perennial or seasonal allergic rhinitis, eczema and other allergic skin diseases. The results have been reported,[2] but our present regimen will be discussed and outlined.

This extract seems to alter the ability of the tissues to respond to an allergic stimulus; the exact site of action is unknown. Since this is apparently a non-specific effect, skin tests and other diagnostic procedures are not essential. This state of non-reactivity, or anergy, persists for some time after the injections are stopped; it is not a transient protection such as that afforded by corticotropin (ACTH) or the adrenocortical steroids.

CLINICAL COURSE

Injections of the extract are given intramuscularly, daily whenever possible. The initial course consists of at least five doses; more if symptoms are severe. Additional "booster" doses are sometimes given at intervals of four to seven days if the response to the first course has not been satisfactory.

For adults, we usually use 1.0 cc. Larger doses of 1.5 to 2.0 cc. can be given with perfect safety and may produce somewhat more rapid improvement. Infants are given 0.25 to 0.5 cc., children 0.5 to 0.75 cc.; doses of 1.0 cc. seem to be well tolerated.

The injections have not caused local or systemic reactions other than moderate soreness of the muscle; this usually subsides within one or two days. No patient has shown any evidence of sensitivity to the extract.

Often there seems to be little or no improvement during the first 48 hours. Therefore, we do not hesitate to use other drugs to afford symptomatic relief when the patient is very uncomfortable. For asthmatic

2. Rovito, J., *Am. Pract. & Digest. Treat.*, 7:1[illegible] 1956.

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paroxysms, we use aminophyllin, ACTH or steroids and other drugs for a day or two, in addition to injections of the extract; thereafter those drugs are rarely needed. A similar program is followed for patients with hay fever or other severe symptoms. If infection is present, antibiotics are given. Since there seem to be no incompatibilities, any other drugs can be used while the injections are being given.

CONCLUSIONS

Injections of a specially prepared extract of Toxicodendron quercifolia (Anergex) are followed by amelioration or complete relief of allergic symptoms in the vast majority of patients treated.

This improvement may last for at least 18 months.

Relief is rapid, and if relapses occur they respond promptly to additional injections. Seasonal allergy (hay fever) tended to recur the following year, but the symptoms were milder and were easily controlled by a few "booster" injections.

Other manifestations of allergy may develop after the original symptoms have been abolished; these respond to additional injections.

Since its action seems to be non-specific, the patient does not need to have extensive series of skin tests or other diagnostic procedures.

No reactions or side-effects have been seen after injections of this extract; no sensitivity to it has been observed.

Fungus Infections of the Scalp

It is essential that the Wood light be used for the exclusion of other dermatoses; cultures are necessary to identify the causative fungus

NORMAN TOBIAS, M.D., *St. Louis, Missouri*

Of all the fungus infections which affect the skin, scalp ringworm is the most contagious. Whether sporadic, endemic or epidemic, it is rarely diagnosed early by the general practitioner. The infection is regarded by most mothers with dread, for many consider it as a disease which may require a long period before cure is attained, or which may cause her child to become bald. The question of school attendance must also be considered. The physician may be unfamiliar with the methods for properly diagnosing a case of scalp ringworm. What about local fungicidal therapy vs. x-ray expilation? Are cultures important? Should the case be referred to a specialist? When should manual epilation be used? Does he need a Wood light to diagnose and treat ringworm of the scalp? How long does it usually take to cure a case? What is his duty to the family and to the community to prevent spread of the infection? These questions will be answered here.

Ringworm of the scalp (tinea capitis) is a parasitic invasion of the hairy scalp by specific fungi, practically limited to children under the age of puberty. Insidious in onset, the infection may at first attract notice as a localized pruritic area. In most cases the mother, while combing the child's hair, observes a small area with or without redness or crusting, in which are broken-off hairs. As the disease progresses, the

fungi which for the first few days remain on the skin, gradually work down to the follicle. One or more round or oval discrete or irregular patches are formed. Depending on the type of fungus, inflammation may be absent or active. The tissue response to the invasion may be minimal (inflammation absent), moderate (pustules or crusts) or severe (kerion, a carbunculoid lesion).

Identification of the fungus is essential for selection of the best method of cure. The three varieties of fungi which invade the scalp are:

1. Microsporon lanosum (canis), a zoophilic fungus which is pathological for kittens and puppies, and which is the usual cause of sporadic ringworm.

2. Microsporon audouini which is responsible for epidemics, does not affect animals and is acquired from person to person contact.

3. Tinea tonsurans, which is rare in native Americans, and does not glow under the Wood light, is usually persistent and may affect adults.

DIAGNOSIS

Consider every bald spot in a child's scalp ringworm until it is ruled out. To differentiate tinea from seborrheic dermatitis, pyoderma, alopecia areata and trichotillomania, the Wood light is indispensable. When its rays are focused on a patch of ringworm, the hair exhibits a bright green fluorescence. No other infection will react to light in this manner. The Wood light is also useful in determining the progress of a case and in establishing a cure. Inspection may cause suspicion of the presence of a ringworm infection but can not be relied upon to make a definite diagnosis. Some cases of the non-inflammatory type can be diag nosed only by Wood light examina tion.

If a Wood light is not available microscopic examination of the sus picious hairs can be utilized. A fe of the broken-off hairs are placed o a clean slide, a few drops of 40 potassium hydroxide solution and cover slip placed on the prepara tion which is then gently warmed for a few seconds to promote clearing Under the high dry lens, the spore will be seen in the sheath of th hair, and mycelial threads in th longitudinal axis of the hair itself.

This method does not identify th type of fungus. This is done b planting the suspected hairs on a tube or plate of Sabouraud medium and observing the cultural charac teristics of the colony after 7-1 days. M. lanosum colonies are fluff white with yellow or orange pig ment, while M. audouini colonies ar brown and furrowed. In case a cul ture is not characteristic, micro scopic examination of the cultura mount is necessary.

EPIDEMIOLOGY

Ringworm of the scalp is not al ways a matter of lack of cleanlines M. lanosum infection may be trace to an infected kitten, playmate o schoolmate. Barber shops and mov ing picture theatres are occasiona sources of infection. In rural areas animal contacts are more commo than child to child contacts. In som cases, it is not possible to identif the source of infection.

A history of similar infections i the neighborhood, school or immedi ate family is always an importan diagnostic point. When one membe of the family is affected, it is im portant to examine all the childre

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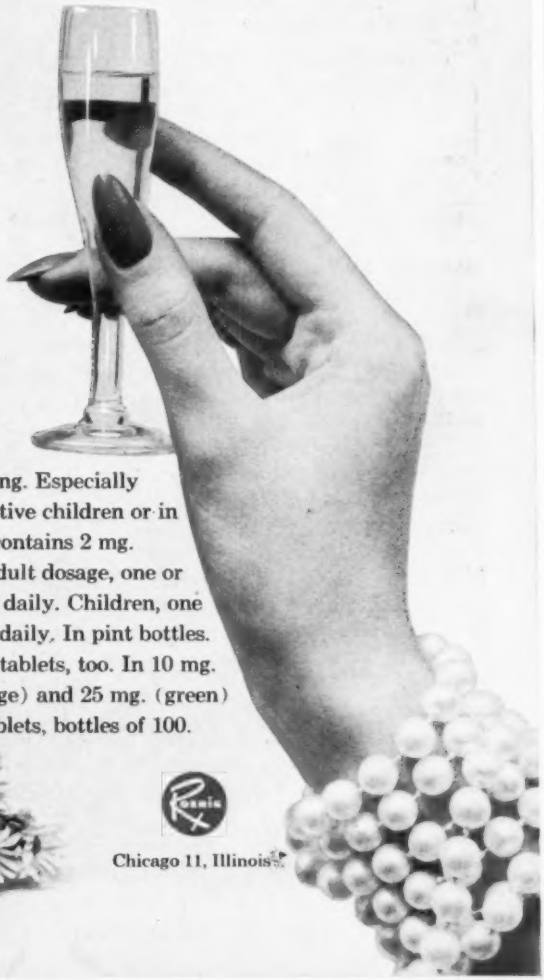


Good tasting, fast-acting. Especially useful in hyperemotive children or in senile anxiety. Each cc. contains 2 mg. hydroxyzine. Adult dosage, one or two tsp., three times daily. Children, one tsp. once or twice daily. In pint bottles.

ATARAX tablets, too. In 10 mg. (orange) and 25 mg. (green) tablets, bottles of 100.

Roerig

Chicago 11, Illinois

under 14 under a Wood light. The same procedure should be followed for cases which are discovered in the classroom.

Not every child exposed to ringworm will acquire it, in spite of close contacts. Possibly the hormonal secretions and the higher fatty acids in the sweat and sebum are protective. Animal experimentation has shown that mild trauma is necessary for infection to occur. The longer hair in girls may account for the lower incidence in this sex.

DIFFERENTIAL DIAGNOSIS

To avoid errors in the diagnosis of tinea, the Wood light is the most practical means of excluding nonfungus disease. It is not only unethical but cruel to make a diagnosis of ringworm of the scalp on inspection alone.

If tinea is still suspected, in the presence of a negative Wood light examination, (T. tonsurans infections), the diagnosis must be made by microscopic and cultural studies.

Impetigo contagiosa may follow mild trauma or may occur secondary to lesions on the face. The stuck-on yellow crusts, the short duration (few days) and the response to antibiotic ointments are diagnostic points.

Seborrheic dermatitis fluoresces a bluish gray under the Wood light and is sometimes mistaken for tinea by nurses. The greasy scaling is limited to the skin. The hairs are not affected.

Alopecia areata appears as a smooth bald patch and reaches full development within a few days. The patch is round and devoid of hairs or inflammation.

Trichotillomania. This rare neurosis consists of a semi-bald patch containing hairs broken-off at vario levels. No inflammation is prese The child plucks the hairs unco sciously until an irregular se ni-ba area results.

TREATMENT

Therapy depends on the ype fungus found in the culture If t physician is not equipped to dia nose a suspected case, dermatolog cal consultation should be obtaine The child can return to the derma tologist every two weeks for ad quate supervision. To treat suspe ted cases of the disease with oin ments without making cultural stu ies is inexcusable. The treatment M. lanosum infections is simple b cause of their inflammatory nature control of the indolent M. audouin types is more complex and pr longed.

M. Lanosum Infections. Any the following preparations may b used: 7% tr. iodine in carbon tetra chloride applied daily; 5% ppt. su fur in Carbowax 1500; Asterol undecylenic ointment three time daily. If sensitization occurs, a mil soothing cream should be used for few days, then the applications re sumed. The scalp should be sham pooed daily with tincture of gree soap. All loose hairs should be co lected and burned. The patien should be stripped and the entir skin examined for evidence ringed or scaly lesions which shoul also be treated. Cure depends o obtaining an inflammatory reaction (Those rare cases which do not re spond to local therapy may require x-ray epilation.) The average cas require two weeks for a cure wit proper cooperation.

M. Audouini Lesions. X-ray epila tion is the only method which can b

depended on. When x-ray therapy is refused, or unavailable four choices remain:

1. Ointments of the fungicidal type.
2. Manual epilation.
3. Thallium acetate epilation.
4. Estrogenic therapy.

The only fungicidal ointment that has proven of any value is 5% salicylanilide ointment. To be effective at all it must be massaged into the scalp three times daily for five minutes at a time. Several months are required for an evaluation and only by monthly Wood light examinations can the effectiveness of the drug be studied. Hopkins[1] reports 60% cured in two to three months; Andrews[2] states: "The results of topical therapy are so uniformly disappointing that it is usually a waste of time." It is obvious that few parents will consent to a method that is so tedious when x-ray therapy requires only one visit to the dermatologist for the epilation. The only indication for ointment therapy is in the child about thirteen years of age, when a spontaneous cure at puberty is the rule.

Hormonal injections (estrogens) and thallium acetate have been used by some workers as collateral therapy when x-ray epilation is not available. Their use in treatment is mentioned only to be condemned.

Forceps removal of the hairs under the Wood Light, while the child is using fungicidal ointments, may shorten the course of the infection and permit the medication to enter the emptied follicles. The mother can be instructed in the method. A purple X bulb can be inserted in a floor lamp at home and the manual epilation done every two weeks for five minutes at a time. When large areas are involved or the child is fearful and uncooperative, x-ray epilation is the only solution.

X-RAY THERAPY

When given by a skilled therapist, nothing equals x-ray epilation in effectiveness (96% cure rate) and rapidity of cure (average 6 weeks). The x-rays do not have a fungicidal effect but cause a temporary epilation within ten days. Hair growth occurs about 6 weeks after epilation is complete. The writer employs x-ray epilation exclusively, and has never had a parent refuse or object to the treatment. Possible objections that have been raised by the ignorant or confused include fear of permanent baldness, sterility and an adverse effect on the brain.

KERION INFECTIONS

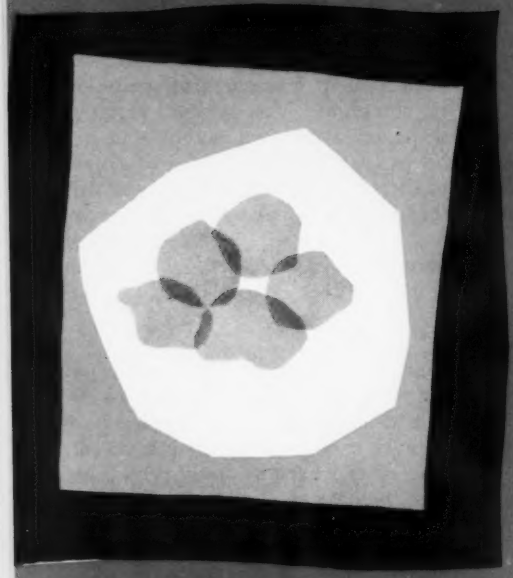
Suppurative ringworm or kerion is a tender boggy scalp lesion as a result of deep infection of the hair follicles in a predisposed individual. Any of the various fungi which attack the hair may cause this unusual lesion. In most cases there is moderate fever and local adenopathy. Treatment consists of hot boric compresses. The lesion regresses spontaneously after a week or two. In no case should the lesion be excised.

T. Tonsurans Infections. These rare infections, including "black dot" ringworm, are caused by the Endothrix group of fungi, the spores of which invade the cortex of the hair (T. gypseum, T. faviforme, and T. sulfureum are the usual causes). Most of the cases in the cities occur in Mexican or Puerto Rican children and adults, while those in rural

1. Hopkins, J. G., et al., *Arch. Derm. & Syph.*, 67:479-483, 1953.
2. Andrews, G. C., *Diseases of the Skin*, Saunders, Fourth Ed., 1955.

selected platelets make a select powder

PROOF



Only Johnson's Baby Powder uses purest Italian talc exclusively. The unique, flat, smooth talc platelets are then carefully processed for uniformity.

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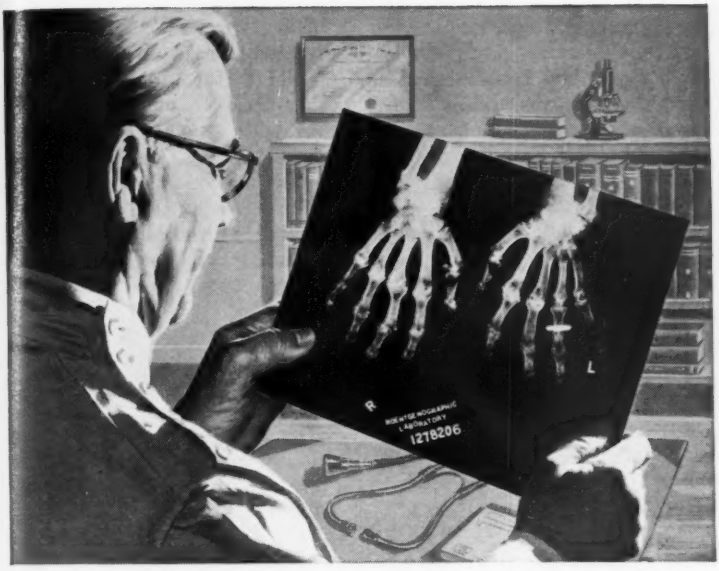


Flexible Arthritis Therapy with BUFFERIN®

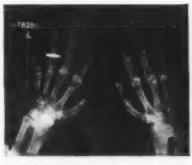
Exploit fully the use of salicylates in arthritis—give steroids in minimal doses—combine salicylates with corticosteroids for additive antiarthritic effect—this is the program Spies[1] advocates in a recent article in the Journal of the American Medical Association.

Treatment of rheumatoid arthritis demands a "highly individualized program," Spies[1] writes. The additive action of salicylates permits use of smaller amounts of hormones, thus lessening or eliminating their well-known side effects. "A proper mixture of salicylates and corticosteroids produces an effective antirheumatic agent in many cases."[1]

Suit your treatment to your individual arthritic patient. Use the hormone you prefer, in the dosage you think best, but for better results combine it with BUFFERIN, the salicylate proved to be better tolerated by arthritics.[2]

BUFFERIN contains no sodium, a marked advantage when cardiorenal complications make a salt-restricted diet necessary.

Each BUFFERIN tablet contains 5 grains of acetylsalicylic acid and the antacids magnesium carbonate and aluminum glycinate.



References:

1. J. A. M. A. 159:645 (Oct. 15) 1955. 2. J.A.M.A. 158:386 (June 4) 1955.

BRISTOL-MYERS CO., 19 West 50 Street, New York 20, N. Y.

areas are acquired from cattle. Many cases are overlooked because they simulate impetigo, seborrheic dermatitis or pyoderma. They do not fluoresce under the Wood light and they may affect the adult scalp. These cases do not respond to local therapy and must be epilated with the x-ray.

Prevention of Scalp Ringworm. Sporadic cases may sometimes be avoided by good scalp hygiene, monthly examination of the entire scalp for scaly or bald spots, avoidance of barber shops with questionable sanitation and cautioning the child not to play with kittens having sores or scaly spots. It is also wise to caution children not to exchange hats or caps with playmates.

The School and the Child with Scalp Ringworm. In some schools, especially those with a large Negro element, Wood light examinations are made by the nurse once or twice yearly. If a case is found, the child should not be kept from his studies but should be treated while attending school. In order to avoid infection to others, he should wear a "beanie" made of muslin, dyed to match his hair. He should be dismissed a few minutes before the other children and cautioned not to play with them. To avoid an inferiority complex, the fact that the disease will be cured, and the reason for the precautions, should be explained to the child. Uncooperative parents should be reported to the health authorities.

SUMMARY

Ringworm of the scalp requires more than clinical examination for diagnosis.

The Wood light is necessary to exclude other dermatoses while cultures are important to identify the causative fungus.

Proper therapy depends on whether the infection is caused by M. lanosum (canis), the animal type, or M. audounini, the human type.

X-ray therapy is at present the best method of treating M. audouini infections.

Four Minutes the Limit in Cardiac Arrest

Cardiac arrest can go undetected by the anesthetist who takes a patient's pulse rate no oftener than every 4 or 5 minutes. The anesthetist must be aware of an arrest the moment it occurs if resuscitation is to be undertaken within the critical 4-minute survival time. The heart must be massaged within 4 minutes and an adequate airway for controlled ventilation with 100% O_2 must be established immediately.

Therapeutic Notes, 10:246-249,1955.

Differential Diagnosis of the Red Eye

A great variety of conditions may be responsible for redness of the eye; a number of diagnostic features are outlined

WILLIAM H. HAVENER, M.D., *Columbus, Ohio*

The frequency with which conjunctivitis ("pink eye") is encountered may engender a feeling of security in dealing with red eyes, leading to regrettable delay in diagnosis and treatment of severe eye diseases.

The following features may be utilized in differentiating minor and major diseases causing a red eye:

1. Definite reduction in acuity of vision as checked with a Snellen chart or as reported by the patient is not to be disregarded. It means that functional damage to the eye has already occurred.

2. Very severe discomfort indicates serious or potentially serious involvement. Corneal epithelial abrasions, though they ordinarily heal without residual, are potentially serious because of their vulnerability to infection. Absence of pain does not rule out major eye disease.

3. Debris within the eye (hypopyon, hyphema, fibrin) and fresh infiltrations or ulcerations of the cornea always mean major eye disease.

4. Irregularities in size and shape of the pupil are produced by intraocular disease, never by insignificant superficial disease. (A noticeable degree of anisocoria occurs normally in 5% of the population.)

*Reprinted from *The Ohio State Medical Journal*, 52:836-837,1956.

Fundamental advance in the battle ag

HYPE

An oral antihypertensive that gives the convenience of oral administration the reliability of parenteral injection.

INVERSINE is a *totally new* antihypertensive agent. It is mecamylamine, a secondary amine, *chemically different* from all other ganglionic blocking agents.

INVERSINE is both *potent* and *reliable* on *oral* administration. It has been *proved therapeutically effective* in the treatment of hypertension, and has been used by many investigators on thousands of patients.

In one of many clinical trials,* "The over-all response rate was 92%, and 24% of the patients became normotensive." Investigators have found INVERSINE to be ". . . the most potent . . . of the three drugs in reducing the blood pressure . . ."[1] [INVERSINE and two other ganglionic blocking agents.] Completely absorbed when given by mouth, INVERSINE ". . . has such a gradual onset and offset of action that a continuous and effective level of blockade can be readily achieved . . ."[2]

INVERSINE *Provides Many Clinical Advantages:*

1. *Excellent reproducibility* of effects.

2. *Most potent* of all available oral ganglionic blockers (10 to 20 times more potent than pentolinium and about 90 times more potent than hexamethonium).

3. *Smooth, predictable response.* In a given patient, the same dose of INVERSINE elicits the same blood pressure response, time after time, *with minimal day-to-day fluctuation.*

4. *Remarkable physiologic economy* (because completely absorbed) resulting in *long duration of action, sustained effect.*

5. *Gradual* onset of effect.

INVE

ENSION

6. *Small oral dosage* produces required hypotensive effect.

7. *Effective* even in patients refractory to hexamethonium and other ganglionic blocking agents.

ADDITIONAL ADVANTAGES

When INVERSINE is used for ganglionic blockade, some patients suffering from hypertension may experience relief of pre-existing headache and angina pectoris.

Many patients with retinopathy, congestive heart failure and electrocardiographic abnormalities have shown signs of improvement during treatment with INVERSINE.

SIDE EFFECTS

INVERSINE (mecamylamine) is a very potent agent which must be used with care. Side effects observed during clinical use are due to excessive pharmacologic action, and may be minimized by careful adjustment of dosage and close supervision of the patient.

References:

1. Moyer, J. H., et al.: Drug Therapy of Hypertension: Preliminary Observations on the Clinical Use of Mecamylamine (A Ganglionic Blocking Agent) in Combination with Rauwolfia for the Treatment of Hypertension, Med. Rec. & Ann. *49*:390 (Sept.) 1955.
2. Sturgis, C. C., et al.: Advances in Internal Medicine, J. Michigan M. Soc. *55*:154 (Feb.) 1956.

*In this clinical trial all patients were given, in addition to one of the ganglionic blocking agents, a constant daily amount of reserpine.

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The same dose
provides
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MSD

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5. A limbal flush encircling the cornea indicates a seriously irritated eye. Sharply delimited sector involvement suggests an allergic rather than infectious etiology. Superficial vessels are redder, more tortuous, moveable by pressure through the lids, blanch with topical 1:1000 adrenalin, and are solely involved in acute conjunctivitis. Deep vessels are less red, straighter, adherent to globe, do not blanch with adrenalin, and indicate more extensive involvement.

6. A noticeable alteration of finger tension (whether harder or softer) denotes major disease.

7. Acute bacterial conjunctivitis is highly contagious and will often be reported in the patient's friends. Glaucoma has a strong hereditary tendency.

8. Failure of acute conjunctivitis (whether bacterial or allergic) to respond to adequate therapy within three or four days should cast serious doubt upon the accuracy of diagnosis. Such cases require complete and careful re-evaluation.

The differential diagnosis of conjunctivitis, keratitis, episcleritis, scleritis, iritis, and glaucoma is concisely outlined in the appended table.

The following features may be o help in suggesting certain et ologi factors in conjunctivitis.

1. Associated marginal blep ariti is often due to staphylococci.

2. Pseudomembrane formati n oc curs in streptococcal and diph heri ic infection.

3. Chemosis indicates very severe infection, such as that produced by the gonococcus.

4. Scarring never results from any ordinary conjunctivitis, but is very characteristic of trachoma.

5. Preauricular adenopathy i caused by virus infection or granuloma-producing bacteria.

6. Ulcerated nodules suggest tbc., lues, tularemia, lymphogranuloma, leptothrix.

7. Flattened papillae and a milky edema are associated with allergy.

It should not be assumed that a red eye heralds only local disease. Examples of systemic disease with ocular hyperemia include trichinosis, thyrotrophic exophthalmos, herpes zoster, acne rosacea, sarcoid, brucellosis, avitaminosis, orbital extension of neoplasm, sinus disease with orbital inflammation, Sjogren's syndrome, Bell's palsy, etc. Glaucoma and scleritis, often also iritis and keratitis, deserve ophthalmologic referral.

Toothpick Injuries of the Intestinal Tract

A 48-year-old white man admitted because of sudden severe r.u.q. pain of 30 hours duration. He vomited once. Examination negative, except for some tenderness and rebound tenderness in the r.u.q. T. P. and R. normal. White cells 18,350, 77% granulocytes. Diagnosis probable acute cholecystitis. Explored 2 hours after admission. Perforation of the ascending colon with abscess in r. u.q. containing a toothpick, with one end still lodged in the perforation.

St. John, E. G., *New York State J. Med.*, 21:3115-3119, 1955.

Management of Lupus Erythematosus—A New Technique

Most patients previously had received extensive, unsuccessful therapy; many of these patients have now been followed long enough to make relapse unlikely

PAUL D. FOSTER, M.D.,* *Los Angeles, California*

The projection of a new drug or method of treatment for any chronic relapsing skin disease must be viewed with critical circumspection. It is with hesitation, and only after using d-alpha tocopherol acetate with patients on a strict regimen for six years in 252 cases (146 reported in this study), that I present it as a successful agent for the treatment of lupus erythematosus.

Lupus erythematosus is recognized to be a skin disease with a potentiality of disfigurement and of dissemination to the entire body. The disfigurement can produce introversion and psychoses; and the dissemination, chronic invalidism or death.

Klemperer et al, grouped certain diseases with a common collagenous type of degeneration.[1] As a result of this report, vitamin E has been used clinically and experimentally in many diseases, vitamin E is one of the few substances which has a beneficial effect on degenerative collagenous tissue.

In a collagen disease such as lupus erythematosus, the histologic alterations are not consistent with infectious disease, being primarily degenerative and not inflammatory.

*Associate Clinical Professor of Dermatology, College Medical Evangelists.

1. Klemperer, P., et al, *Arch. Path.*, 32:569-631, 1941.
2. Neumann, E., *Arch. f. Mikr. Anat.*, 18:130, 1880.

Neumann termed it a "fibrinoid" reaction of the tissue (swelling of the collagen bundles).[2] It is now known that it is not a specific sensitivity response, but represents tissue damage as a result primarily of any hyperemia or hypostatic condition.

Vogelsang et al. concluded that the tocopherols should be helpful wherever improved arteriolar circulation or better oxygen utilization in tissues was desired.[3] He felt that when tocopherols are administered to patients with vascular obstruction, the thrombosed veins are relaxed to permit circulation over and past the thrombus.

Pomeranze et al. noted that important relationships between altered serum tocopherol levels and physiologic inadequacy have not been satisfactorily demonstrated in man.[4] However, studies indicate a less than normal plasma tocopherol level in malnourished individuals and in disease states of which impaired absorption of fat is a feature. These clinicians raised the interesting theory that many patients may have shown little or no response to oral vitamin E therapy because of other conditions (diseases of the gallbladder, liver, pancreas, gastrointestinal tract, etc.) which often markedly interfered with the absorption of fat-soluble vitamins taken orally.

Mason states positively that vitamin E acts as a physiological antioxidant.[5] This has been demonstrated in vivo as well as in vitro, where the antioxidant action of the tocopherols has long been used to protect oxygen-sensitive substances.

3. Shute, E. V., et al, *Surg., Gynec. & Obst.*, 86:1-8, 1948.
4. Pomeranze, Julius & Lucarello, Ralph J., *J. Lab & Clin. Med.*, 42:790-704, 1953.
5. Mason, K. E., Physiological Action of Vitamin E and Its Homologues, Vitamins and Hormones, Vol. II, N. Y. Acad. Press, Inc., 1944.

Hove found that vitamin E ma edly prolonged the life of ra s ma tained on diets fatally low in pr tein.[6]

Burgess and Pritchard studi the mixed tocopherols in the trea ment of lupus erythematos us, a reported that 25 cases, no matt how old, responded almost specifi ally to tocopherol therapy in dos of 100 mg. to 300 mg. by mouth Long-standing cases with much i filtration, follicular pluggi g a evidence of sclerosis and fibros yielded much more slowly and r quired a much higher dosage, 3 mg. to 600 mg. of mixed tocophe ols daily. Inflammatory infiltrate generally disappeared rapidly and in chronic cases with marked thick ening, partial regeneration of co lagenous tissue was demonstrabl The authors explain the recurren of the disease in some apparent cured cases by the fact that "eithe total histopathological regenerati had not resulted or the treatme has been stopped too soon. The patients required the administra tion of mixed tocopherols daily maintain a satisfactory tissue-to copherol level."

Welsh reports that with the us of massive doses of d-calcium pan tothenate alone there was slight im provement, but when vitamin E i the form of natural tocopherols wa added to the program, rapid im provement was noted.[8] In checkin his statistical results, it should b noted that his results were directl proportional to the amount of to copherols used.

Pascher et al. used mixed tocoph

6. Hove, E. L., *Proc. Soc. Exper. Biol. & Me* 65:508-511, 1946.
7. Burgess, J. F. & Pritchard, J. E., *Arch. Derma & Syph.* 57:953, 1948.
8. Welsh, A. L., *Arch. Dermat. & Syph.*, 65:15 1952.

rols (both natural and synthetic) rally, and reports poor results.[9] Her eport is based upon the experience f the staff members of the New ork Skin and Cancer Unit over a ine-month period.

Several authors have reported the bservation that the mixed tocopherols have completely eliminated hotosensitivity in patients with lupus erythematosus—even to the oint of allowing them to become anned This may be the key to the olution. However, all of my patients have been instructed to avoid he sun.

OLERANCE

Tocopherol is relatively nontoxic nd is well tolerated, even in large oses, by laboratory animals. In linical practice, side effects following the oral or parenteral administration of vitamin E are uncommon.

It has been my experience that l-alpha tocopherol acetate is much more effective when given with dilute hydrochloric acid to the point of tolerance. It would appear that the acid helps either in the absorption, assimiliation or utilization of vitamin E. The elimination of salt from the diet has also increased the efficiency of the drug.

Rarely, a cutaneous eruption such as urticaria, with pruritus, may be observed and has been attributed chiefly to sensitivity to the vegetable oil in which the vitamin is carried. When injected intramuscularly in the usual dosage, there is usually no more irritation than would be produced by a bland vegetable oil.

Particularly impressive was the fact that there were no side reactions, sensitivities, anemia or leukopenia. It would appear to be a safe treatment for a disease generally recognized to be of toxic origin with a tendency to anemia and leukopenia.

Four patients developed large, firm nodules in the buttock at the sites of intramuscular injections after several months of treatment. These nodules appear to be fibrotic and are more annoying than painful. Two of these patients followed over two years showed no decrease in the size of nodules. All occurred in the discoid type of lupus erythematosus and in patients who had received prolonged treatment with gold and bismuth.

TREATMENT

1. High-acid-ash diet (no citrus fruits, tomatoes, or potatoes).
2. Salt-free diet (using salt-free bread).
3. Dilute hydrochloric acid to the point of tolerance. Give 20 drops in half glass of water with each meal. Use glass drinking tube. Increase by five drops every 3 days to tolerance. Decrease by 10 drops if heartburn or stomach distress occurs.
4. Capsules Aquasol E, 100 mg., #100,* d-alpha tocopherol acetate. Sig: One t.i.d., p.c.
5. Injection d-alpha tocopherol acetate, 200 mg. intramuscularly twice weekly.
6. Carbon dioxide snow stick or beaker to indurated lesion every two weeks.
7. Sun should be avoided as completely as possible.

STATISTICS

1. All cases here reported had biopsies, and the usual histopathological changes seen in lupus

9. Pasher, F., et al, *J. Invest. Dermat.*, 17:261, 1951.

* U. S. Vitamin Corporation

erythematosus were found.

2. There were 89 females and 57 males.
3. The oldest patient was 70, the youngest 9, average age was 40 years.
4. 110 cases had been treated previously with gold or bismuth or both. 36 had received no previous therapy.
5. Duration of therapy in one case was 13 months; the average was 5 months and 22 days.
6. Results of treatment: 11% of the cured cases treated had recurrences. Of the 11%, 7% were completely cleared with further treatment; 4 had minor activity but were satisfied with the result, 86% were apparently cured.

The highest sedimentation rate was: Female, 47; Male, 40; average: F., 20; M., 9.

The urinalyses results showed 3 cases with albumin, 4 with casts, and 1 with glucose.

The red blood cell counts were normal, average 4.62 million.

The white cell counts showed leukopenia in two cases of the disseminated type. The average was 7,420.

The hemoglobin average was 81%.

Lupus erythematosus cell studies were made begining in 1953, but are not reported here.

COMMENTS

For the past six years I have been treating discoid and disseminate lupus erythematosus with d-alpha tocopherol acetate, using an acid-ash regimen with success. As an adjunct, in certain hypertrophic types, carbon dioxide snow was used locally. In all, I have treated 252 patients, 248 discoid and 4 disseminated. Of this total, the results of 10 were not reported. These were either patients who refused biopsy whose diagnosis was in some way questionable, who were uncooperative or who discontinued treatment before proper evaluation could be made.

The majority, 75% of the 146 patients reported, had previously undergone treatment with gold or bismuth or both.

The results show that 86% were apparently cured; 14% obtained satisfactory relief; all showed benefit and none became worse.

Of the four disseminated lupus erythematosus cases treated, three cleared up without recurrence over a one-year period, one has had a minor recurrence of a discoid type in a small area about the face. In a check of foci of infection, it was found that this patient has hepatitis. He is now clear and has been observed over a period of four years.

The response in most instances has been rapid, dramatic and gratifying. The hyperkeratotic discoid type has responded to the treatment more rapidly with the addition of carbon dioxide snow applied in the solid form, or by mixing the carbon dioxide with acetone and applying it with a cotton applicator. There was no increased activity of the lesions at any time following the administration of d-alpha tocopherol acetate. The carbon dioxide snow was used on the hyperkeratotic lesions to cause a more rapid dissolution of the indurations.

SUMMARY

The results of the treatment of lupus erythematosus with d-alpha

ocopherol acetate plus an acid-ash regimen has added a useful new treatment to our armamentarium. The use of carbon dioxide snow stick to the hyperkeratotic areas contributed to the rapidity of the cure. The use of dilute hydrochloric acid and a salt-free diet has been of substantial benefit.

The only untoward results have been the formation of fibrotic nodules or tumors in four female patients, at the sites of injection.

The patients have served as their own controls because of the extensive therapy they had previously received. Only 36 patients had no previous treatment.

The mechanism of action of d-alpha tocopherol acetate upon lupus erythematosus is not yet determined.

Antibiotics as Prophylactic Agents

The use of antibiotics as prophylactic agents has become so widespread that in most hospitals only a minority of patients leave without having received antibiotics for one reason or another.

In a survey of the value of drugs used prophylactically, it is evident that the only types of infections thus prevented are those with highly susceptible organisms that, when they cause infection, are readily controlled with the same agents given early and intensively.

Editorial, *New England J. Med.*, 252:872-873, 1955.

Bioflavonoids and the Common Cold

Water-soluble citrus bioflavonoids, useful in conditions of capillary abnormality, were combined with ascorbic acid to effect rapid improvement in many respiratory infections

EARLE T. WENTWORTH, JR., M.D., *Egypt, Massachusetts*

The U. S. Public Health Service estimates that the common cold and other respiratory infections annually rob industry of 150,000,000 work days. The average American is said to develop at least three colds per year.

Efforts to reduce the incidence of respiratory infections, or to promote more rapid recovery, had only provided palliatives to enable endurance of the syndrome more comfortably, however, a positive treatment was suggested by Biskind and Martin in 1954. It was a sequel to a discovery announced in 1936 by Dr. Albert Szent-Gyorgyi, then in Hungary. Szent-Gyorgyi successfully treated a type of hemorrhage with a commercial concentrate of Hungarian peppers, rich in vitamin C. Later he tried to cure a similar syndrome with pure ascorbic acid and failed. This started him and his associates on a search for the potent accessory factor in Hungarian peppers and also in citrus peel, as both compounds were clinically effective against the hemorrhagic condition. At the time, Szent-Gyorgyi felt he had found a new group of vitamins, and he called them vitamin P in honor of paprika and permeability on which later they were found to have effect.[1]

Further study of these com-

1. Armentano, L., Szent-Gvorgyi, A., et al., *Deutsche med. Wchnschr,* 62:1325,1956.

pounds, already known to chemists as flavonoids, failed to fulfill the established definition of a vitamin, and American investigators agreed to drop the vitamin P designation and call those that were biologically active "bioflavonoids." Willaman states that there are 137 natural flavonoids occurring in 62 families, 153 genera and 277 species of plants.[2] Only a very few of these naturally-occurring flavonoids are biologically active in animals. Citrus peel and pulp are particularly rich in both water-soluble bioflavonoid complexes and insoluble flavonoids such as hesperidin. Recent studies have indicated that only certain components of the water-soluble bioflavonoid complex of citrus are fully active by mouth.[3,4]

Water-soluble citrus bioflavonoids prevent, and restore to normal, increased capillary permeability and fragility, and thus act to control the exchange between blood constituents and tissue fluids. The literature shows many observations in which these bioflavonoids have been found useful in the treatment of a wide series of pathological conditions in which there is capillary abnormality. In 1954, clinical investigators described their use in the control of the common cold and other respiratory infections.

Biskind and Martin reported that "In the course of administering a preparation containing equal parts of citrus bioflavonoids and ascorbic acid* it was noted that associated infections cleared up dramatically. In one case, in a patient with influenza who had a temperature of 102 F. and severe upper respiratory involvement, recovery occurred by crisis within 24 hours after initiating this therapy. There was profuse sweating, the temperature dropped rapidly to normal, and the respiratory symptoms simultaneously subsided."

They treated 22 more patients, 5 to 70 years of age, having respiratory infections ranging from simple rhinitis without fever to acute follicular tonsillitis and influenza. In 20 of these, recovery resulted in from 8 to 48 hours. The therapy appeared effective regardless of the stage of infection.

In a summary published in 1955 by Biskind et al, it was reported that in 125 cases of upper respiratory infections treated, the activity of the soluble bioflavonoid complex appears to be mainly toward control of the capillary syndrome induced by viruses and bacteria, and that this action appears to be anti-inflammatory.[6]

Sokoloff treated five cases of type A influenza (diagnosed serologically by the Hirst test) with large doses of the same bioflavonoid formula. Recovery was dramatic in all cases in from 24 to 48 hours.

In a study like the present one concerned with reduction of absenteeism caused by respiratory infections, Finch treated 136 patients. Sixty-five of these employees received only C.V.P. and of these, 53 showed recovery or marked improvement in from 48 to 72 hours and lost no time from work. There

*C.V.P.® 100 mg. of water-soluble citrus bioflavonoid complex & 100 mg. ascorbic acid. Supplied by U.S. Vitamin Corporation, New York, New York.

2. Willaman, J. J., *J. Am. Pharm. Assoc.* 44:404, 1955.
3. Freedman, L., et al., *Proc. Am. Chem. Soc.*, April, 1956.
4. Salgado, F., & Green, D. M., *J. Applied Physiology*, 8:647,1956.
5. Biskind, M. S., & Martin, W. C., *Am. J. Dig. Dis.*, 21:177,1954.
6. Sokoloff, B., et al., *Clin. Med.*, 2:787,1955.
7. Sokoloff, B., *Am. J. Dig. Dis.*, 22:7,1955.
8. Finch, F. L., *Tri-State M. J.*, 3:18,1956.

were 12 failures. (In Finch's series, owing to the manufacturing process, the possibility of allergic rhinitis could not be ruled out in all cases and may have accounted for some failures.) In 71 cases, Finch used a combination of C.V.P. and either opiates or antibiotics. Sixty-four showed recovery or marked improvement in 48 hours; there were 6 failures.

Similarly, serous otitis has been reported by Goldman to respond favorably to C.V.P.[9]

Beginning in February and continuing through May, 1956, 360 employees with acute upper respiratory infections were treated in a plant employing approximately 600 persons. As each patient presented himself to the plant clinic for examination, he was given an envelope containing the first day's dose of 12 capsules of C.V.P. The next morning, after examination, he received a second envelope of 12 capsules, and on the third and fourth days a dose of 6 capsules for each day. Each patient received a total of 36 capsules for the four day period. All patients presented typical symptoms of upper respiratory infection and nasal congestion. Some also had pharyngitis, cough and fever. A few patients presented symptoms of frontal or maxillary sinusitis. Duration of symptoms varied from less than one day to one month prior to the institution of therapy. In most cases the infection had been present for one or two days.

Of the 360 patients started on this regimen, 340 completed the course. Twelve patients consulted another physician and were started on antibiotics. Eight patients stopped medication. These 8 patients all had upper respiratory infection symptoms for an additional 5 to 14 days after stopping medication.

Of the 340 patients completing the course of treatment, 316, or 92.9% were symptom-free at the end of four days. None had a recurrence of symptoms. The remaining 7.1% continued to have symptoms of upper respiratory infection after the course of treatment. No side reactions were noted. Of the total of 340 patients in this series, 156 were noticeably improved within 24 hours, 35 of these free of symptoms. In 48 hours, 195 of the group had improved markedly and 65 were completely cured. After three days, virtually all the patients had shown improvement and 139 had no residual symptoms. By the end of the fourth day, 316 were symptom-free.

In the group of 340 patients who completed the course of treatment, there were only 17 employee-days of absenteeism. In the group of 20 who had little or none of the medication, 16 employee-days were lost. This reduction in days lost following C.V.P. therapy of the common cold and other upper respiratory infections during the period from February through May, 1956 reduced the overall absenteeism from all causes to 5.5% of total employee-days, as compared with a loss of 11.5% for the same period in 1955.

SUMMARY

In an industrial plant during February through May, 1956, a group of 340 employees with upper respiratory infections were treated with a bioflavonoid complex. Of these, 316 or 92.9% were symptom-free in 4 days or less with nearly complete elimination of absenteeism.

9. Goldman, H. B., *Eye, Ear, Nose & Throat Monthly*, 35:246-249,1956.

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Ear and Throat Problems in General Practice

Medical and surgical procedures are used in the treatment of otitis media, laryngitis, hoarseness and bleeding from the nose

J. W. McLAURIN, M.D. and T. P. RAGGIO, M.D.,
Baton Rouge, Louisiana

Otitis media is a self-limited disease which, in the absence of suppuration, will go on to recovery in 80% or more of all cases under the simplest measures, or with no treatment at all. Antibiotic and chemotherapeutic agents are not indicated. With suppuration, they can do great harm. The fundamental surgical principle is that *pus must be evacuated*. Myringotomy remains an essential operation.

In uncomplicated otitis media, ventilation by way of the eustachian tube is best accomplished with oral vasoconstrictors. If lymphoid tissue is prominent in the nasopharynx, some type of nose drops may be useful. If allergy is suspected, an antihistamine should be given. Either heat or cold may relieve pain or discomfort.

Local applications should not be employed in the ear, neither phenol and glycerine mixtures nor modern preparations. If pain is severe, myringotomy is usually indicated, whether the pressure is the result of suppuration or simple exudation.

Local analgesia is obtained with some such agent as Bonaine's mixture; a cotton pledget saturated with it is placed against the tympanic membrane for 15 minutes. The child must be under control, which is best accomplished by wrapping

him in a sheet and having an assistant hold his head firmly. The otoscope is then inserted, and a curved incision is made in the posterior inferior quadrant, from below upward. If the promontory (inner wall) is avoided, the incision can be made without difficulty, with little or no discomfort.

If a tip suction is available, aspiration is practised, but neither medication nor irrigation is indicated thereafter. Cotton wicks are kept in the canal and are changed frequently to keep the field clean.

Laryngitis frequently accompanies an upper respiratory infection—explained by misuse or excessive use of the voice. It very often responds promptly to mere rest of the voice.

Hoarseness may be no more than a transient and insignificant symptom, or it may be the first symptom of carcinoma of the larynx. If hoarseness does not promptly subside, and in many cases even when it does, the patient should be referred to an otolaryngologist who can perform direct laryngoscopy and biopsy—the only sure means of diagnosis in many cases.

Most bleeding from the nose is from the septum; this can be checked by cotton pack and digital pressure for five minutes. If desired, spot packing may be employed under direct vision, or oxycel may be used. After bleeding is under control, the area may be cauterized with the coagulating current.

If bleeding which originates in the throat does not promptly cease, it may be necessary to ligate the anterior ethmoid, the sphenoid or the internal maxillary artery.

J. Louisiana State M. Soc., 107:345-353, 1955.

Simplicity in Anesthetic Administration

A large number of operations can be undertaken with safety, provided that a Mitchell needle and hand bellows are at hand

SIR ROBERT MACINTOSH, M.D., *Oxford, England*

Nitrous oxide and cyclopropane, though useful, are far from indispensable. They can be replaced by agents which do not have to be stored in cylinders, and which can be administered with precision by much simpler and lighter apparatus, sufficient for any operation.

The dose of an anesthetic which produces unconsciousness has to be increased some six to eight times to provide the flaccid abdomen which allows the surgeon to operate at ease. And these larger doses, even when skilfully administered, are responsible for an almost inevitable hangover. Briefly, the modern approach is to give light general anesthesia to insure unconsciousness, and then to abolish reflex response to stimuli by one of the relaxants, which, in themselves, do not cause any metabolic upset. The operating conditions are excellent and the postoperative malaise is negligible.

In competent hands the relaxants are safe, but if refinement is to be achieved, one must be able to inject them intravenously in small doses at short notice, as required. If their effect begins to wear off on a lightly anesthetized patient, chaos can soon result. The time margin between perfect operating conditions and a struggling, though unconscious, patient is small. In order to have command of the situation, the anesthetist now demands an ever-open vein—just as a few years ago he demanded an ever-open glottis and insured it

by inserting an endotracheal tube. He now leaves in the vein a needle through which injections can be given at will. An intravenous drip can be set up for this purpose, but this is a cumbersome procedure if the object is solely to keep the needle free from blood clot: a Mitchell (1952) needle is equally effective and much simpler. The needle lies within the vein, and a swab presses the tissues over the point. An intravenous injection can be made at any time merely by attaching the syringe to the hub of the needle. When the syringe is disconnected, the external pressure of the swab over the point is sufficient to prevent reflux of blood and clotting within the lumen.

It will often be found convenient to insert the needle into vein on the dorsum of the hand, and steady it by strapping. The elbows are now flexed and secured by rolling the night-gown up and tying with a piece of bandage. This position gives admirable exposure for abdominal surgery without putting any strain on the arms, and it makes the hand veins accessible to the anesthetist.

If priority were to be given to any one piece of anesthetic apparatus, it should be the small hand bellows with unidirectional valves in the supporting base. When the face-mask is applied to the patient breathing normally, the movement of the valves with respiration is clearly seen. On inspiration, air is drawn in through the inlet in the base, and the expired gases are directed to the outside air through the one-way valve near the mask. If respiration is inadequate and needs assistance, or if it is in abeyance and needs controlling, this is easily accomplished by compressing the bellows, transferring the contents to the patient's lungs. As the bellows is re-expanded it fills again with fresh air drawn in through the inlet. There is no simpler way of giving artificial respiration. It has also proved useful for months on end in cases of poliomyelitis.

Cylinders of oxygen are far from necessary. There is plenty of oxygen in air, provided one has the means of transferring it to the patient's lungs. It is an easy enough matter to fill the bellows with air, and artificial respiration can be continued indefinitely by compressing it intermittently.

If the patient breathing air has a good color before a cholecystectomy, he will remain so throughout the operation under curare, provided adequate ventilation with air is maintained: if ventilation is adequate, CO_2 will be eliminated. A good color is a reasonable assurance that there is no need to worry about oxygenation and elimination of CO_2. If pulmonary exchange is allowed to fall off, this is revealed by a poor color, a warning that ventilation is not as good as it should be. The anesthetist in charge of the gas machine may not notice that he is bolstering a deficient pulmonary exchange by increasing the flow of oxygen. The patient is kept pink, but CO_2 accumulates and post-operative collapse depression from this cause may be a sequel.

Controlled respiration by positive pressure can be carried out satisfactorily without an endotracheal tube. When artificial respiration is necessary in the curarized patient, the adductor muscles of the larynx, like the rest of the striped muscles of the body, are relaxed. The glottis is patent, so that when the bellows is compressed, the lungs are inflated

easily. Unstriped muscle, however, is unaffected by curare, so that the tone of the distal half of the esophagus offers considerable resistance to the passage of air. Air will pass into the stomach only when the pressure within the bellows is excessive. This is likely to happen in two conditions—if the airway is obstructed or if the lungs are already well inflated. If pressure on the bellows is continued after the lungs are full—this can easily happen in children with a small vital capacity—it may rise to the point where it overcomes the sphincter-like action of the circular fibres of the lower end of the esophagus, when air will be forced into the stomach.

It is a misconception that a closed circuit is necessary to carry out controlled respiration with positive pressure. In the curarized patient, raise the mask slightly after the lungs have been inflated: expiration now takes place passively because of the recoil of the elastic tissue in the lungs. If the larynx is intubated, a Cobb connexion is fitted. The hole in this is covered by a finger during inflation, and uncovered to allow expiration.

Injected through the needle, thiopentone ensures unconsciousness, and any of the relaxants bring absence of response to stimuli; and manipulation of the bellows provides adequate pulmonary exchange with air. Some anesthetists hold that an inhalation agent should be used to maintain unconsciousness, and even as the source of muscular relaxation. With this in mind, gas and oxygen, if available, can be run in through the tap at the base of the bellows, or the air inlet can be covered with gauze into which any predetermined liquid anesthetic is dropped. A little more elegance is achieved by replacing the gauze with a can of liquid anesthetic. On inspiration, anesthetic vapor in air passes to the patient; or the anesthetist, by compressing the bellows rhythmically, can waft the mixture to the patient—a state of affairs not unlike that effected by the more elaborate gas machines.

Some may demand the refinement of a scientifically designed vaporizer, through which the air is directed on its way to the patient. By setting the control tap, any state ranging from mere unconsciousness to profound general anesthesia can be provided. With the curarized patient, the control tap of an ether vaporizer can be set as low as 2-3%, and the hand bellows used to inflate the lungs with this concentration of vapor. This is strong enough to keep the patient unconscious, yet it is so weak that he recovers promptly, with negligible after-effects. If a relaxant is not used, the control tap will have to be moved to the 15-20% region for straightforward deep ether anesthesia.

For those who have a fixed dislike of ether, or where explosion is a hazard, a vaporizer very similar in construction can be calibrated for trichlorethylene: 0.75% vapor in air provides unconsciousness of a depth comparable to light nitrous oxide anesthesia.

For operations outside the thorax, air is an excellent medium with which to oxygenate the patient. In intrathoracic surgery, supplementary oxygen is essential to compensate for the decreased pulmonary exchange.

Brit. M. J., 4947:1054-1057, 1955.

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SEARLE

Prevention of Anaphylactic Reactions to Penicillin

A prophylactic program is presented that will inhibit or delay anaphylaxis when it is essential that the allergic patient be given penicillin

ETHAN A. BROWN, M.D., *London, England*

A patient with a history of pollenosis, bronchial asthma, atopic eczema or urticaria, who has previously had one or more courses of penicillin therapy, has a one to six chance of developing an anaphylactic reaction. If a reaction has previously occurred, the risk is greater with each successive reaction. The majority of reported deaths have occurred with the second to sixth spaced injections (not courses of treatment). Some have been known to lose their sensitivity. Others may be sensitive to a particular penicillin preparation.

Injected penicillin has been estimated to cause some reaction in 2.5% of children, 5% of nonallergic adults, and 15% of allergic subjects. The incidence of reactions is increasing by 1% each year. For oral preparations, the reaction rate is 0.2%. Anaphylactic death has followed the use of oral penicillin.

A scratch or pressure puncture test with sodium penicillin helps to solve two problems. The stock solution contains 1,000 units/ml. This must be diluted with saline to 100, 10, 1, and 0.1 units/ml. One drop of the testing solution is used for the routine scratch or pressure puncture test. If there is no wheal with erythema in 10 to 15 minutes, the next stronger solution is used. Since many penicillin-treated patients pre-

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Copper (from Cupric Sulfate)	1 mg.
Iodine (from Potassium Iodide)	0.15 mg.
Iron (from Ferrous Sulfate)	3.33 mg.
Manganese (from Manganous Sulfate)	0.33 mg.
Molybdenum (from Sodium Molybdate)	0.2 mg.
Magnesium (from Magnesium Sulfate)	2 mg.
Phosphorus (from Dicalcium Phosphate)	187 mg.
Potassium (from Postassium Sulfate)	1.7 mg.
Zinc (from Zinc Sulfate)	0.4 mg.

Dosage: Two or three capsules daily, before meals.

Supplied: Bottles of 100 soft, soluble capsules.

1. Mayo Clinic Diet Manual, Saunders, Philadelphia, 1950. 2. Vernon, S.: Nutritional deficiency. Clin. Med. [Oct.] 1950.

ROERIG Chicago 11, Illinois

sent a dermographia, a saline control test should be done. A positive test means only that sensitivity *may* be present; a negative test that it *may* not be present. When all scratch tests are negative, then intradermal tests, using the stock solution and injection 0.1 to 0.3 ml., can be done.

With a positive test, the physician chooses another antimicrobial agent. If penicillin remains the drug of absolute choice, the positive scratch or intradermal test has not only proved sensitivity to be present, but has probably mobilized some of the antibodies to the test site, or has resulted in some "conditioning" of the tissue cells.

PRECAUTIONARY MEASURES FOR ALLERGIC PATIENTS

If, after taking 30 minutes to prove the presence or absence, type, and degree of the skin reacting type of sensitivity to penicillin, the drug must nevertheless be administered, the following method can be used: The penicillin-sensitive patient is given an oral antihistaminic agent. We use chlorprophenpyridamine maleate, 4 mg., or chlorcyclazine HCl, 25 mg. In separate sites, 15 minutes later, 0.3 ml. epinephrine 1:1000 and 0.1 to 0.2 ml. epinephrine 1:200 are injected subcutaneously. To the dose of penicillin is added a half dose of any injectable antihistaminic agent and another 0.1 to 0.3 ml. of epinephrine 1:1000, the dose of either being proportional to the weight of the patient. The allergic subject has now received as good a prophylactic preparation against anaphylaxis as we can, at present, give him.

The dose of penicillin is injected in the lower part of the upper arm, so that, if necessary, a tourniquet can easily be applied—⅓ dose at once, the remaining ⅔ in two equal doses at intervals of 20 to 30 minutes. (The entire procedure takes 90 minutes.) The patient is directly issued a supply of antihistaminic tablets, to be taken every six hours for three or four days.

This program is advocated as an absolute measure only when penicillin must be given to an allergic patient with a known history of reactions, in whom an intradermal test is mildly or moderately positive. Its use is advised as a precautionary measure in allergic patients who have had mild or moderate penicillin reactions of any type in the past, and who are now taking penicillin for the third or fourth time. It would, in any case, be wise to skin test every patient who is going to take penicillin, and then to use such modifications of the prophylactic program as may be deemed necessary. The physician who does not want to test his patient can always use another drug.

With oral penicillin preparations in a non-reacting allergic patient, an oral antihistaminic preparation, and perhaps pretreatment with epinephrine (1:1000) 0.1 to 0.2 ml, in suspected reactors, should be sufficient.

In any case, *all* measures must be taken *before* injecting penicillin. The greater the delay before the reaction occurs, the less severe it will be. When prophylactic medication inhibits or delays such anaphylaxis, there is that much more time available for treatment. The unprepared physician whose unprotected patient goes into immediate anaphylactic shock, usually has no time to do anything at all, since death, when it does occur, is a matter of minutes. The patient who survives an ana-

phylactic reaction should be told of his sensitivity, warned not to take penicillin again, and should carry a card stating that he is allergic to the drug.

Every patient for whom penicillin treatment is planned should be questioned as to allergy in general and to penicillin in particular. There is no valid reason why anybody, anywhere, should suffer from penicillin anaphylaxis.

Since early 1953, we have ceased using penicillin in private practice, substituting chloramphenicol, with no ill results.

*Editorial, *Antibiotic Med.*, 1:439-441, 1955.

Homosexuality

Drugs commonly used in the treatment of homosexuals are estrogens which produce temporary cessation or diminution of sexual desire in most subjects. Normal sexual desire returns when use of the drugs is stopped. They are most useful as a temporary measure to reliexe sexual tension, to demonstrate that the patient can obtain relief if his desires become insupportable and as a semi-permanent treatment in older patients in whom there is no contraindication to severe limitation of sexual life. They are most effective in a small group of patients who are very highly sexed. In some patients who have been repeatedly punished and despair of avoiding further imprisonment, the drug may break a vicious circle and allow them to give up homosexual associations.

J.A.M.A., 160:699, 1956.

Intramuscular Oxytetracycline in Penicillin-Resistant Pediatric Respiratory Infections

One injection of oxytetracycline daily brought good results in non-hospitalized children with infections of moderate severity

E. J. DENEHOLZ, M.D., F. L. ROBINSON, M.D., and W. E. FORNEY, M.D., *Modesto, California*

Several recent studies of hospitalized patients have cited the value of intramuscular oxytetracycline in the treatment of acute infections in childhood. To our knowledge, there have been no reports dealing primarily with the employment of this antibiotic in patients with acute respiratory disease where penicillin was clinically ineffective. Clinical observations were made in a group of 249 infants and children in whom intramuscular oxytetracycline was employed following the therapeutic failure of intramuscular penicillin. Intramuscular oxytetracycline was evaluated as a practical therapeutic procedure in non-hospitalized pediatric patients. Patients ranged in age from one month to nine years.

An initial injection of intramuscular oxytetracycline was given, following the failure of intramuscular procaine aqueous penicillin (200,000 to 600,000 units per injection) to exhibit a demonstrable beneficial effect. Only a few infants under three months of age received less than 300,000 units of penicillin per injection, (1 to 3). Many of these patients, especially those with otitis media, pneumonia and tracheobronchitis, had received other antibiotics orally in addition to intramuscular penicillin. Those with exudative tonsillitis had received no treatment other than intramuscular penicillin; 18 to 24 hours after the first injection of oxytetracycline, if there was a marked improvement, intramuscu-

lar oxytetracycline was usually repeated; 12 to 24 hours following the last intramuscular injection, oral oxytetracycline 10 mg. for each pound of weight was given each day in three to four divided doses for a period of four to eight days, depending on the nature of the illness.

Results were excellent in 60 patients from a group of 84 cases of tonsillopharyngitis; in 14 of 23 of otitis media; in 10 of 17 of pneumonia; in 3 of 6 of cervical adenitis; in 2 of 2 of acute sinusitis; in 8 of 13 of acute laryngitis; in 4 of 8 of laryngotracheobronchitis; in 25 of 38 of tracheobronchitis; in 4 of 8 of bronchiolitis; in 3 of 11 of asthma with infection.

Particular reference is made to the use of one intramuscular injection of oxytetracycline daily to non-hospitalized patients with infections of moderate severity the dosage schedule of 3 to 5 mg. for each pound daily, given in one injection with the possibility that even smaller doses (1.5 to 3 mg./lb./day) may suffice in some instances. The low incidence of local reactions is also emphasized.

Antibiotic Med., 1:543-465, 1955.

The Shoulder-Hand Syndrome

About 15% of myocardial infarction patients have persistent pain in the shoulder, arm, wrist, or hand during the recovery period; many with severe angina pectoris are similarly affected. Prompt and wise treatment often prevents chronic pain and limitation of motion.

When the will to recover dominates passivity, a turning point is reached for many patients. Repeated encouragement is essential.

The physician's familiarity with a particular treatment method, or the availability of special equipment or trained personnel, may well decide the regimen chosen. Analgesics and graduated exercises should be used regardless of the main regimen.

Stellate ganglion blocks, well carried out, give more rapid therapeutic results, and symptoms recur only rarely. Blocks are given by the anterior (paratracheal) route at intervals of two to seven days. In most patients who respond to this treatment, seven or less injections are needed; however, they should be continued as long as improvement is noted, until sufficient functional capacity is restored. If the patient is sensitive to procaine, other analgesic substances may be used instead. Injections have been given to ambulatory patients; also a continuous block for three to five days has been maintained with the hospitalized patient.

A disadvantage of steroid therapy lies in the large initial dosage and long maintenance period needed after symptoms are controlled (three to six months).

There is an almost immediate improvement in certain patients in whom pain has been unalleviated by other treatment.

Rest of the part affected is usually required. Analgesics in ample dosages, such as the salicylates should be given for prompt relief, repeated as long as necessary. Local injections of procaine at tender points are effective in some cases.

The Heart Bull., 5:42-45, 1956.

Acne Vulgaris

Formulas are listed for lotions and ointments which will maintain dryness and slight scaling; ultraviolet rays have also proved to be effective therapy

FREDERICK D. MALKINSON, M.D., *Chicago, Illinois*

Local therapy is to combat sebaceous gland hyperplasia and seborrhea and to eradicate keratin plugs, thereby preventing development of new lesions. Sulfur, which has a pronounced antiseborrheic effect, and keratolytics such as strong alkaline soaps, resorcinol, and salicylic acid are the principal agents employed. Using hot water and soap, the patient gently massages the skin of the face between the fingers for five to ten minutes each night. Potassium soap (medicinal soft soap, U.S.P.) is more effective than the commonly used sodium soaps. After rinsing with cool water and blotting dry with a towel, a lotion or paste is test-applied to a limited skin area to avoid widespread irritation. Begin with nightly application of a shake-type lotion composed of: precipitated sulfur, 3 gm.; resorcinol, 2 gm.; zinc oxide, 22.5 gm.; talc, 22.5 gm.; glycerin, 10 gm.; and purified water sufficient to make 100 cc.

If such a lotion can be tolerated, the strength of the active ingredients may be gradually increased to maintain dryness and slight scaling. Concentrations to 20% sulfur and 5% resorcinol may be used. For severe cystic forms of acne, a freshly prepared Velminck's solution is especially useful: sulfurated lime solution, 8 cc. or 12 cc. and purified water sufficient to make 120 cc.

Ideally, all local applications to

acne areas should be free of greases. But the effects of sulfur and salicylic acid are potentiated by incorporation into pastes and ointments. Accordingly, when response to lotions is inadequate, use an ointment of: precipitated sulfur, 10 gm.; salicylic acid, 5 gm.; resorcinol, 2 gm.; and zinc oxide ointment, U.S.P. sufficient to make 100 gm.

For cosmetic reasons, some prefer using instead this lotion for daytime use:

	Complexion		
	LIGHT	MEDIUM	DARK
Neutracolor	2.9 gm.	4.2 gm.	6.7 gm.
Zinc oxide		8.3 "	
Talc		8.3 "	
Calamine		8.3 "	
Glycerin		8.3 "	
Alcohol 70%		16.6 cc.	
Purified water		100.0 cc.	
The following may be added:			
Precipitated sulfur	3%	5%	10%
Resorcinol	2%	2%	2%

Summertime improvement in patients with all forms of acne attests to the beneficial effects of ultraviolet light. While fairly intense, ultraviolet radiation with mercury vapor lamps can be given as an office procedure; satisfactory results may be obtained from the home use of a small inexpensive bulb (RS model) that inserts into a standard lamp socket. At a distance of 15 inches, irradiation of affected parts is begun with an exposure time of one minute; this is increased by 30 seconds each day until a 10 minute exposure time is reached; then continued daily for 10 minutes. For irradiation of the face, the left side, right side and front are successively exposed after the eyes are protected with moist cotton. Directions concerning protection of untreated areas and precautions against overexposure are essential. A careful balance between the use of local applications and ultraviolet rays is necessary to avoid excessive drying, erythema and scaling.

X-ray therapy may be of great value in severe cases, but it must be left to those with specialized training.

Correction of any seborrhea and excessive scaling of the scalp seems to be beneficial to facial acne. Shampoo with medicinal soft soap liniment, U.S.P., twice weekly, followed by Selsun.

While cysts are best treated with hot compresses, persistent fluctuation, without signs of involution, may require active drainage under ethyl chloride anesthesia.

Comedones, numerous or deeply imbedded, require hot compresses locally followed by careful removal with a comedo extractor, without application of undue pressure.

INFLUENCE OF DIET

Some foods may aggravate the condition—carbohydrates, fats, nuts, chocolate and strong cheeses; also iodides, bromides, seafood—use noniodized salt. Increase in protein intake may be imposed initially on every patient, but continued rigid adherence may be unnecessary. Since many patients respond satisfactorily to local therapy despite the nature of their diets, it is apparent that dietary therapy must be individualized.

Long-acting penicillin intramuscularly is given until the active infection is optimally controlled; repeated courses are often required.

Surgical skin-planing holds promise in the important field of improving unsightly scarring when the disease activity has subsided.

J.A.M.A., 159:1117-1119, 1955.

NEW PHARMACEUTICAL PRODUCTS

Son inat *(National Drug)*

A molecular complex of chloral hydrate and antipyrine. It is almost entirely free of the penetrating acrid odor of chloral hydrate. Produces few if any side effects. Each tablet contains the equivalent of 382 mg. of chloral hydrate and 218 mg. of antipyrine. *Indications:* Insomnia. *Contraindications:* Severe renal and hepatic disease. Discontinue if skin rash appears. *Dosage:* Adults, one or two tablets with a full glass of water, or as directed by the physician. (Caution: May be habit forming.) *Supplied:* Bottles of 100 tablets.

Cenamal *(Central)*

Multi-action formula provides decongestion of nasal and respiratory mucosa with effective vasoconstrictor and bronchodilating action. Each capsule contains 24 mg. of Dover's Powder, 0.25 gm. of salicylamide, 0.12 gm. of acetophenetidin, 5 mg. of racephedrine hydrochloride, 12 mg. of pyrilamine maleate and 50 mg. of ascorbic acid. *Indications:* Headache, muscular aches and general malaise of the common cold. *Dosage:* 1 or 2 capsules every four hours as required. *Caution:* In the high dosage range, patients should be cautioned against driving a car or operating machinery while taking Cenamal. *Supplied:* Bottles of 100, 500 and 1,000 capsules.

Sultussin *(Tilden)*

Liquid combination of antibacterial, antiallergic, expectorant, bronchodilating and antispasmodic agents. Each 5 cc. contains 0.166 gm. of Sulfadiazine, 0.166 gm. of Sulfamerazine, 0.166 gm. of Sulfamethazine, 6.25 mg. of Pyrilamine Maleate, 6.25 mg. of Phenyltoloxamine Dihydrogen Citrate, 50.0 mg. of Glyceryl Guaiacolate and 5.0 mg. of Ephedrine Sulfate. *Indications:* For symptomatic relief of the common cold, cough and related upper respiratory disorders, and prevention or control of infectious complications, especially in cases of doubtful etiology. Also recommended as an adjunct to antibiotic therapy. *Dosage:* Adults, 2 teaspoonfuls every four hours. Children, 1 teaspoonful every four hours, or in accordance with body weight. *Supplied:* 4 ounce and 1 pint bottles.

Axofor *(Warren-Teed)*

This combination of analgesics is potentiated by a small dose of phenobarbital for mild sedative effect. Each capsule contains 60 mg. of Dipyrone (4-methylamino-1, 5-dimethyl-2-phenyl, 4-pyrazolone), 120 mg. of Acetophenetidin, 200 mg. of Acetylsalicylic Acid and 15 mg. of Phenobarbital. *Indications:* pain, accompanied by anxiety or nervous tension. *Supplied:* bottles of 100, 500 and 1,000 capsules.

Tashan Cream *(Hoffmann-La Roche)*

Multivitamin cream for the relief of irritation in skin disorders. Each gram contains 10,000 U.S.P. units of vitamin A, 50 mg. of *d*-panthenol, 1,000 U.S.P. units of vitamin D_2 and 5 mg. of vitamin E (*dl*-alpha-tocopheryl acetate). *Indications:* Sunburn, irritated skin, diaper rash, prickly heat, itching, chapped hands and face, poison ivy, minor burns, detergent rash, dry skin, cracked skin and insect bites. *Administration:* A thin layer of cream is applied to the affected area and rubbed in gently. May be used 3 or 4 times daily, or more often when required. *Supplied:* One ounce tubes.

Artamide HC *(Wampole)*

Antiarthritic and antirheumatic. Artamide with hydrocortisone is sodium and potassium free. Smaller doses of salicylates and hydrocortisone combined provide a therapeutic response equivalent to large doses of cortisone. *Indications:* acute rheumatic fever, rheumatoid arthritis, gouty arthritis, when these conditions do not respond to salicylates alone. *Caution:* Use with caution in the presence of acute psychosis, tuberculosis, chronic nephritis, peptic ulcer, diabetes mellitus, Cushing's syndrome and in patients prone to thrombophlebitis. *Dosage:* patients on maintenance dosage of corticosteroids should be given an initial dosage of 2 capsules three or four times daily, followed after several days by a gradual reduction of the steroid. If symptoms then return, dosage may be increased to the lowest effective dose. *Supplied:* bottles of 100 orange and black capsules.

Du-Oria *(Ascher)*

Timed-release tablets release reserpine and approximately half of the methamphetamine within one hour after ingestion, and the rest of the methamphetamine over a period of 4 to 6 hours. The effect is felt soon after the tablet is taken in the morning and lasts throughout the day. Each tablet contains 0.25 mg. of Reserpine and 10.00 mg. of Methamphetamine (d-Desoxyephedrine) Hydrochloride. *Indications:* nervousness, tension and irritability, especially when combined with feelings of depression, anxiety and lassitude. *Dosage:* one tablet daily, taken between 8:00 A.M. and 10 A.M. *Supplied:* boxes of 60 tablets and bottles of 500 tablets.

Clusivol *(Ayerst)*

Incorporates essential fat and water soluble vitamins together with minerals and 'trace' elements. *Indications:* vitamin deficiency states. *Supplied:* bottles of 8 fluid ounces with unbreakable plastic dispenser, bottles of 16 fluid ounces. Capsules in bottles of 100 and 1,000.

Ferronord *(Nordmark)*

An aminoacetic complex of ferroglycine sulfate complex iron which supplies ferrous ions protected against oxidation in pH ranges of stomach and intestine. Rapid increase of serum iron levels with correspondingly higher hemoglobin levels result in days. The optimal absorption of ferrous iron is accompanied by freedom from the side effects usually associated with iron therapy. *Administration:* Should be given on an empty stomach or between meals for optimal absorption.

Synalgos *(Ives-Cameron)*

Analgesic-relaxant lessens anxiety and tension while easing pain. Each capsule contains 6.25 mg. of promethazine hydrochloride, 3.0 grains of acetylsalicylic acid, 2.5 grains of phenacetin and 7.5 mg. of mephentermine sulfate. *Indications:* Tension headache, sinus headache, and headache and cramps of dysmenorrhea. *Dosage:* 2 capsules initially, then 1 or 2 capsules two or three times daily. *Caution:* Drowsiness may occur in extremely susceptible individuals. *Supplied:* Bottles of 48 capsules.

Ataraxoid *(Pfizer)*

Combines the anti-rheumatic, anti-inflammatory activity of prednisolone with the tranquilizing effect of Atarax. Permits symptomatic control and reduction of anxiety. Each tablet contains 5 mg. of prednisolone (Sterane) and 10 mg. of hydroxyzine hydrochloride (Atarax). *Indications:* Rheumatoid arthritis, other collagen diseases, bronchial asthma, intractable hay fever, severe inflammatory or allergic diseases of the skin or eye. *Dosage:* Must be regulated to meet requirements of patient. It may range initially between 4 to 8 tablets daily, followed by a reduced maintenance schedule. *Supplied:* Bottles of 30 and 100 green, scored tablets.

Fostex Cake *(Westwood)*

Contains Sebulytic, a combination of anionic soapless cleansers and wetting agents of high penetrating power. Further antibacterial and keratolytic action is provided by 2% sulfur and 2% salicylic. *Indications:* Acne vulgaris.

Resydess *(Chicago Pharmacal)*

Allays hunger and avoids undesirable side effects such as insomnia or excessive excitation. Each tablet contains 8.0 mg. of dl-Desoxyephedrine Hydrochloride and 0.1 mg. of Reserpine. *Indications:* obesity; assists in adherence to dietary regimens, helps to overcome desire for food due to psychologic causes. *Contraindications:* conditions complicated by cardiovascular disease, extreme nervousness, insomnia or hyperthyroidism. *Dosage:* one tablet once or twice daily before meals. *Supplied:* bottles of 100 and 1,000 tablets.

Otamylon with Hydrocortisone *(Winthrop)*

Antiallergic, anti-inflammatory, analgesic ear drops. Clear, odorless, sterile, viscid liquid containing 5% Sulfamylon HCl, 5% benzocaine, and 0.02% hydrocortisone in anhydrous glycol. *Indications:* For topical chemotherapy in acute and chronic otitis externa, furunculosis, acute and chronic otitis media, after mastoidectomy and fenestration operations. *Administration:* After cleansing and drying the ear canal, apply 2 or 3 drops or moistened wick three or four times daily. *Supplied:* 15 cc. combination package with dropper. Otamylon and Hydrocortisone Solution supplied in separate bottles, to be mixed prior to dispensing.

Salicim *(Irwin, Neisler)*

An agent to help to prevent the recurrence of urinary stones. Each tablet contains 5 gr. of Salicylamide. *Indications:* recurrent urinary stones. *Dosage:* 2 tablets three times daily. *Supplied:* bottles of 100 green, scored tablets.

often succeeds in stubborn skin conditions unresponsive to other therapy

PANTHO-F CREAM

HYDROCORTISONE	1%
PANTOTHENYLOL	2%

in a water-miscible, pleasant, stainless, vanishing cream base; virtually non-sensitizing

. . . provides the dramatic anti-inflammatory action of hydrocortisone alcohol . . . plus the anti-pruritic and healing power of pantothenylol, the active ingredient of Panthoderm Cream.

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rapidly allays inflammation
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promotes smooth granulation
accelerates healing

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neurodermatitis
pruritus ani et vulvae
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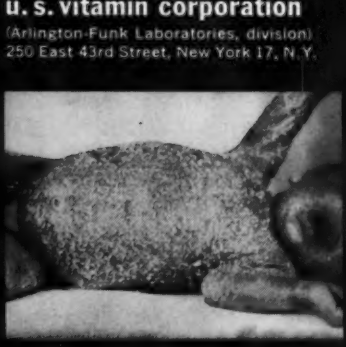


briefs: MEDICAL

Aspirin and Gastric Hemorrhage

Of 165 patients admitted to the hospital with hematemesis and melena, 151 were studied with regard to the taking of aspirin. Thirty-four never took aspirin. Of the other 117, 28 complained of some undesirable side-effects, of which 24 were epigastric pain, nausea, vomiting, or heartburn. Among 170 episodes of hematemesis or melena, there were three which gave reasonably good evidence for the supposition that the aspirin had caused the bleeding, in the absence of any other gastric lesion.

An analysis of these 3 cases, and a fourth not in the series of 170, shows that this bleeding occurs in one of three circumstances: 1. Aspirin taken for some painful disorder independent of the gastrointestinal tract. 2. Self-medication for abdominal pain. 3. The unwitting treatment of a sensitive patient in the hospital.

Serious intolerance is so rare, and aspirin is so valuable an analgesic that it should not be forbidden unless intolerance is definitely established. Those who have minor gastrointestinal symptoms from the drug should take calcium aspirin or enteric-coated tablets.

Watenson, A. P., *Brit. M. J.*, 4955:1531-1533,1955.

Sulfonamide Therapy

The main reasons for the conspicuous resurgence of sulfonamide therapy in recent years are:

1. Development of preparations of maximum efficacy and minimum toxicity (sulfonamide mixture principle).

2. Growing recognition of some major shortcomings of antibiotics, particularly the "broad-spectrum" type, which may induce serious or long-lasting gastrointestinal disturbances (staphylococcic diarrhea, moniliasis, pseudo-membranous colitis).

3. Economy of sulfonamides, ease of accurate chemical estimation in body fluids, and high antibacterial activity even as compared with antibiotic agents. Sulfonamide therapy *has remained* the treatment of choice in meningococcal meningitis. Sulfonamides are highly effective in most other acute coccal infections, either alone or in combination with antibiotics; they are often superior or equal to antibiotics in common urinary infections and in shigellosis. Sulfonamides have remained of value also in infections with Friedlander's bacillus and H. influenzae. They are excellent preoperatively to bowel surgery, without leading to prolonged derangement of the normal bacterial flora.

4. Combination of sulfonamides with antibiotics usually results in synergistic therapeutic activity, often with true potentiation of action. It may prevent the emergence of "superinfections" encountered in antibiotic therapy.

The position of sulfonamide drugs in systemic antibacterial therapy was re-evaluated in the light of the abundance of powerful antibiotic agents now available.

Modern sulfonamide therapy insures maximum therapeutic efficacy at a minimum risk to the patient, particularly with regard to sensitization reactions and renal complications.

Mixtures of several highly active sulfonamide drugs, especially of the sulfapyrimidine group — e.g., the triple mixture *Sulfadiazine-Sulfamerazine-Sulfamethazine* (equal amounts)—represent the *preparations of choice* in the treatment of systemic sulfonamide-sensitive infections, either alone or in combination with antibiotics. By employing sulfonamide mixtures, one can combine high blood levels and excellent tissue diffusion with a low incidence of sensitization reactions and reliable protection of the kidney.

Lehr, D., Exhibit Session A.M.A., New York City, June 21-25, 1954.

Peptic Esophagitis and Peptic Ulcer of the Esophagus

Of the several varieties of peptic ulceration in the esophagus, the most important are:

1. The esophagitis associated with peptic ulcer which is due to peptic action on a long segment of the lower esophagus. Dysphagia, pain and hemorrhage occur. Stenosis and hemorrhage are the chief complications. Ulcer drug therapy, diet and dilations usually alleviate the symptoms. Occasionally, surgical therapy is necessary.

2. Peptic marginal ulceration in a short esophagus at the cardia in a sliding hiatus hernia occupying characteristically 1 to 2 cm. of the lower esophagus and often adjacent gastric mucosa. The symptoms and therapy are like those in the first group. Repair of the hernia may be considered when the ulceration is healed.

3. Solitary peptic ulcer of the esophagus is a rare disease. Many cases so regarded in the past were probably marginal ulceration with hiatus hernia and the short esophagus. Reflux of acid contents, heterotopic, or ectopic, or metaphlastic gastric secretory tissue lining the lower esophagus may be etiologic agents. Surgical therapy may be necessary in severe cases.

It is not difficult to differentiate these three conditions if one uses good radiographic technique and expert esophagoscopy with appropriate mucosal biopsies.

These esophageal inflammatory conditions must be differentiated from carcinoma by esophagoscopy with biopsy.

Winkelstein, A., *J. Mt. Sinai Hosp.*, 23:18-24,1956.

Occult Blood in the Stool

Stool specimens were examined in 506 cases for occult blood by the benzidine, guaiac, Ham's modified benzidine, and orthotolidine (Hematest) techniques. None of these techniques is specific or sensitive enough to warrant its use as a screening method for the diagnosis of gastrointestinal disease.

Wilcox, Jr., H. R., *Nebraska M. J.*, 41:176-179,1956.

Lower Extremity Pain Simulating Sciatica

Tumor of the cervical and high thoracic spinal cord is an infrequent, but definite, cause of burning or sharp pain referred to a lower extremity. Such pain may be confused with that caused by incomplete peripheral nerve lesions, vascular disease of an extremity and thalamic lesions. The "burning" quality of the pain should make one include a spinal cord lesion in the differential diagnosis. In the absence of positive neurological signs of spinal cord involvement, such pain may be confused with that of a herniated intervertebral disk, or an intraspinal or extraspinal lesion involving the roots of the cauda equina or peripheral portion of the sciatic nerve.

Pain in the lower extremity is frequently due to a herniated intervertebral disk in the low lumbar canal. If the fluoroscopic lumbar myelogram is negative or equivocal, the contrast medium should be run through the entire thoracic canal and, if this is negative or equivocal, through the entire cervical canal, to rule out disk or tumor in these areas.

Scott, M., *J.A.M.A.*, 160:528-534, 1956.

Retroperitoneal Hemorrhage During Dicumarol Therapy

Three cases are presented of acute abdominal conditions believed to be retroperitoneal hemorrhage due to Dicumarol intoxication. A plea is made for the suspicion of this syndrome during Dicumarol therapy of acute myocardial infarction.

Reiter, M. D., *West Virginia M. J.*, 52:205-207, 1956.

Rapid Test for Adrenocortical Insufficiency

A catheter is placed in the bladder if the patient is unable to void, and a few cc. of urine collected. Then 5 cc. of blood is withdrawn from a vein, the syringe is removed from the needle, and an intravenous drip of therapeutic fluid may be started at once. Thus, while the patient is receiving therapy, the serum and urinary concentrations of sodium are determined by a flame photometer. Since only 1 cc. of serum and 5 cc. of urine are needed for the accurate analysis of the sodium concentration by means of a flame photometer, adequate specimens can be obtained even if the patients are in shock and the veins collapsed. If necessary, blood can be obtained from a femoral vein.

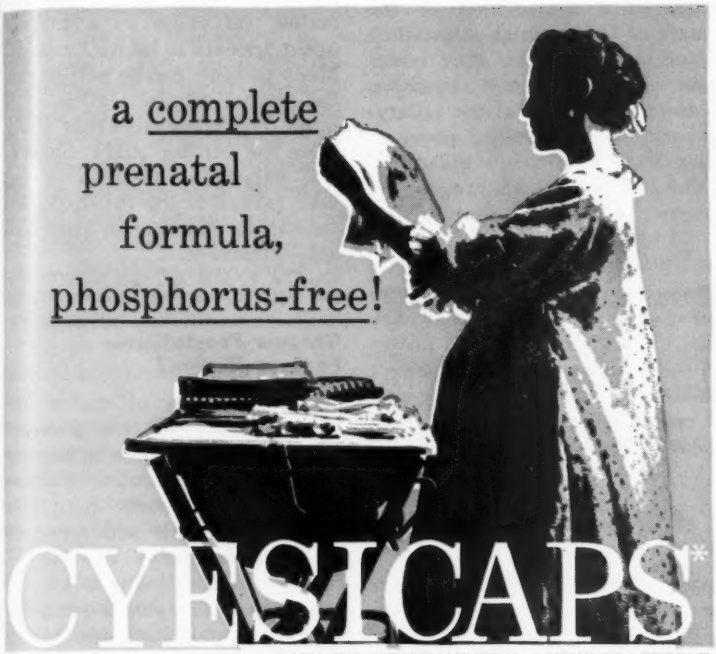
This report consists of the findings in eight patients who have had moderate to marked hyponatremia, dehydration, hypotension and tachycardia. These patients suffered from medical shock as a result of decreasing circulating blood volume s ondary to sodium loss. Thre tients had been on a severe s stricted diet as part of the th for cirrhosis in two, and of hyp tensive cardiovascular disease n other. Two patients had ad cortical insufficiency and had mary adrenal failure, and the oth had hypopituitarism with secon adrenal insufficiency. Of the fi three patients, two were in the e stages of severe renal failure due pyelonephritis, and one was in t acute phase of anoxic tubular nec sis (lower-nephron nephrosis).

Hyponatremia with medical surgical shock may be due to extr renal salt loss or deprivation, with decreased urinary salt concentr tion. On the other hand, hyponatr mia due to either renal tubul damage or adrenocortical insuf ciency is associated with increas urinary saline concentration. A r pid, simple test will differentiate b tween these two groups of patien without delaying the initiation therapy.

URINARY AND SERUM CONCENTRATIONS

Type of Patient	Serum Sodium	Urinary Sodium
Salt-poor control	Low	Very low
Salt-losing nephritis	Low	Moderate to high
Adrenal insufficiency	Low	Moderate to high

Perlmutter, M., *J.A.M.A.*, 160:117-118,1956.



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If you find your patients complain excessively of muscle cramps due to high phosphorus intake, prescribe CYESICAPS. Each capsule provides 22 vitamins and minerals plus purified intrinsic factor concentrate; calcium is supplied as calcium lactate, its most readily assimilated form. This well-balanced formula is indicated throughout pregnancy and lactation.

Dosage: 1 or 2 capsules 3 times daily.

dry-filled sealed capsules

a Lederle exclusive, for more rapid and complete absorption. No oils, no paste, no aftertaste.

Six capsules supply:

Calcium (as Lactate)	600 mg.
Calcium Lactate	3720 mg.
Intrinsic Factor Concentrate	1.5 mg.
Vitamin A	6,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Thiamine Mononitrate (B_1)	1.5 mg.
Riboflavin (B_2)	3 mg.
Niacinamide	15 mg.
Vitamin B_{12}	6 mcgm.
Ascorbic Acid	150 mg.
Folic Acid	2 mg.
Pyridoxine HCl (B_6)	6 mg.
Calcium Pantothenate	6 mg.
Vitamin K (Menadione)	1.5 mg.
Iron (as $FeSO_4$ exsiccated)	15 mg.
Vitamin E (as Tocopheryl Acetate)	6 I.U.
Iodine (as KI)	0.1 mg.
Fluorine (as CaF_2)	0.09 mg.
Copper (as CuO)	0.9 mg.
Potassium (as K_2SO_4)	5 mg.
Manganese (as MnO_2)	0.3 mg.
Magnesium (as MgO)	0.9 mg.
Molybdenum (as $Na_2MoO_4.2H_2O$)	0.15 mg.
Zinc (as ZnO)	0.5 mg.

*Reg. U.S. Pat. Off.

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Pancreatitis and Sphincterotomy

Recurrent pancreatitis is primarily due to a dysfunction of the sphincter of Oddi, which allows bile to enter the pancreatic duct under tension. Sphincterotomy abolishes pain due to distention of the biliary-pancreatic duct system, prevents further attacks of acute inflammation due to reflux, stops progressive destruction of the pancreas and allows it to regenerate. Sphincterotomy, by diminishing the intraductal pressure in the pancreas, cures pseudocysts, cysts, and pancreatic fistulas. Sphincterotomy will fail in many cases if the patient is not kept on a fat-free and alcohol-free diet until regeneration is maximal.

Doubilet, H., et al., *J.A.M.A.*, 160:521-528, 1956.

Role of Histamine in Medical Practice

Histamine is available commercially as Histamine Phosphate Tablets (1 tablet equals 1 mg. histamine base); and Histamine Acid Phosphate Tablets (1 ampule equals 1 mg. histamine base).

Histamine may be administered subcutaneously or intravenously.

Epinephrine is the specific physiologic antagonist.

Histamine is indicated in histaminic headache, and Meniere's disease. It is of little or no value in the treatment of asthma, hay fever or other allergic states. It is of no value as a diagnostic skin test.

Histamine is a widely distributed constituent of human tissues and a substance of many actions. The relationship between its pharmacological and its physiological role in the human body remains obscure. There is a growing conviction that its participation in normal and disturb physiologic processes may be more significant than is now appr ciated. Its value as a therapeut agent appears to be well establish Many patients can be helped throu the proper administration of hist mine. The knowledge that will co from the further study, observati and experience of each one of may reveal, in the future, new ind cations for the use of this remar able substance.

Alford, R. L., *J. M. Soc. New Jersey*, 53:25-29,

Chronic Prostatitis—Fact or Fiction?

Three groups of males studie showed the presence of a significa number of leucocytes in the prost tic fluid in a similar percentag These groups were comprised normal men, those with a nonspecif urethral discharge and those r ferred with a diagnosis of chron prostatitis. The constituents of t prostatic fluid fluctuate with ea examination, and recovery of an o ganism in a supposedly infecte gland is difficult. The concept chronic prostatitis as the cause symptoms frequently is one of fictio rather than fact.

O'Shaughnessy, E. J., et al., *J.A.M.A.*, 160:540-5 1956.

Preventing Fainting

Persons with varicose veins an ulcerated legs enjoy walking an hate to stand still. Varicose vein predispose the person standing t fainting. Fainting can be prevented by contracting and relaxing the lower leg muscles, especially the calf muscles, if one is required to stand for a long period of time.

Rivlin, S., *Practitioner*, 176:541, 1956.

Urticaria

Attempts at desensitization to foods have been unsuccessful. In cases of insulin sensitivity in a known diabetic, preadministered antihistamines and a rapid course of hyposensitization might be justified. In the event of an infectious basis or a parasitic infestation, treatment should be the same as if the patient did not have the urticaria. In psychogenic cases, symptomatic measures should be accompanied by reassurance and psychotherapy appropriate to the individual case. Physical allergy is treated symptomatically together with avoidance measures.

For symptomatic control, the antihistamines help in 80% to 85% of cases. Ephedrine or epinephrine in oil may be more satisfactory in very acute urticaria, often followed by ACTH or corticosteroids.

In the more chronic forms, intravenous nicotinic acid may be useful, 50 to 100 mg. daily, or on alternate days, for three to five doses. Soothing lotions, such as calamine or Wise's shake lotion, may give very temporary improvement.

The etiologic agent remains obscure in spite of thorough study in up to 50% of cases of chronic urticaria. Spontaneous remissions occur during the course of investigation in many of these cases. This fact should be remembered in evaluating the treatment.

Urticaria and angioneurotic edema are common conditions. The diagnosis and symptomatic management of urticaria usually are quite simple. Long-range results often require every effort toward determining the etiology in each case.

Sheldon, J. M., et al., *New York State J. Med.*, 56: 505-509, 1956.


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Chlorpromazine in Senility

In the last year, five cases of senile dementia presented a similar pattern of events. Each was regarded as being in fair physical health for her age, and each received the average initial dose of chlorpromazine (25 mg., increasing to 50 mg., three times daily.) In each case, restlessness ceased quickly, and all other sedation was reduced to a minimum. In a few days, the patient was mildly stuporose, and the drug was discontinued — but the stupor deepened. In a variable number of days, peripheral circulatory failure supervened. This did not respond to any of the usual methods of treatment. None of these patients was regarded as robust, and each presented some evidence of cardiovascular degeneration. On the other hand, in three cases the discussion of the death provoked some mention of chlorpromazine. In no case was the patient initially considered to be in any immediate danger.

This is no body of evidence, only grounds for suspicion strong enough to warrant the suggestion, that chlorpromazine in the aged should be very cautiously administered.

Cook, L. N., *Brit. M. J.*, 4972: 918, 1956.

Relief of Dyspnea in Emphysema

Use more forceful but shorter inspiratory effort, and no physical excesses. In the advanced case, one must always extend expiration to supplement tidal volume, but should do so gently. The emphysematous patient, lying supine, can readily be taught to reemploy synchronous diaphragmatic contraction. Belts have much the same therapeutic effect. They should not constrict the abdomen as a whole but should displace the viscera upward, thereby distending the subdiaphragmatic space.

The benefits of abdominal support can be appraised only in the erect position, preferably after resuming work. Ventilatory airflow cannot be improved by greater expiratory effort. Greater effort is futile, wasteful of energy, and it produces dyspnea.

Inspiratory rate of flow is often good. Volume is reduced, and the impairment of flow is related to the hyperinflated state. Therapeutic measures which increase pressure in the subdiaphragmatic space cannot augment that derived from contraction of abdominal muscles, but the diaphragmatic arc is improved, and function is better coordinated with that of the ribs. Breathing limits are still fixed by forces beyond the control of the patient. The aim is economy of breathing effort, not increased ventilation.

Dayman, H. G., *New York State J. Med.*, 56: 1593, 1956.

Stellate Block

Of patients with hemiplegia cerebral thrombosis, 50% improve after stellate block. Where improvement occurs, it is so dramatic and instantaneous that it cannot be attributed solely to the natural course of the disease. Stellate block offers a safe and simple procedure in the early treatment of one of the more common depressing conditions found in a practice where there is more than the normal proportion of elderly patients.

Walsh, R. C., *Proc. Roy. Soc. Med.*, 49:161-164, 1956.

THE QUESTION OF ASPIRIN IN THERAPEUTIC DOSAGE

FACT: Recent studies[1,2] show that, in inflammatory disease, high-level aspirin dosage produces effective results comparable to cortisone. BUT . . . massive doses of aspirin may alter prothrombin levels and, with ACTH-like action, cause a depletion of Vitamin C.[3] Link[4] was first to demonstrate that both side actions of aspirin may result in hemorrhage.

Adequate vitamin C and vitamin K should always accompany high-level aspirin dosage.

A-C-K® BUFFERED combines Aspirin *with* Vitamins C and K to guard against hemorrhagic tendencies with therapeutic aspirin dosage.

FACT: Three to ten per cent of the population exhibits gastric intolerance to even ordinary aspirin dosage.[5,6] Arthritics may be even more prone to gastric upset.[7]

Especially in therapeutic dosage, an acid-neutralizing agent provides a safeguard to patients who tolerate aspirin poorly.

A-C-K BUFFERED supplies Calcium Carbonate, a superior buffering agent to assure satisfactory intake.

Available in yellow and white two-layered tablets, in bottles of 100 and 1000. Each tablet contains: Acetylsalicylic Acid – 333 mg. (5 gr.); Ascorbic Acid – 33.3 mg. (½ gr.); Menadione – 0.33 mg. (1/200 gr.); Calcium Carbonate – 60 mg. (1 gr.). A development of the Wisconsin Alumni Research Foundation.

Bibliography: **1.** Busse, Edwin A.: Clinical Medicine 2:1105 (Nov.) 1955. **2.** Brit. M. J. 1:1223 (May) 1954. **3.** Segard, Christian P.: Med. Times 81:41 (Jan.) 1953. **4.** Link, Karl P.: Chi. Med. Soc. Bull. 51:23 (July) 1948. **5.** Ind. Med. 20:480 (Oct.) 1951. **6.** J. Am. Pharm. Assoc., Sc. Ed., 39:21 (Jan.) 1950. **7.** Fremont-Smith, Paul: JAMA 158:386 (June) 1955.

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Studies in Myasthenia Gravis—Rapid Diagnostic Test

The patient with myasthenia gravis reacted to this test within 30 to 40 seconds with the following response:

1. Increased muscle strength when there was previous weakness
2. Marked subjective improvement.
3. Minimal to no side-reactions.
4. No fasciculations.

Within five minutes, the patient returned to the pre-test status.

Of 300 patients suspected of having myasthenia gravis who were tested with edrophonium (Tensilon) chloride, 110 gave a positive response. For the test, a tuberculin syringe filled with 1 cc. (10 mg.) of edrophonium chloride is prepared. 0.2 cc. is injected leaving the needle in site. If there is no reaction after 30 seconds, the remaining 0.8 cc. is injected. If a cholinergic response occurs with 0.2 cc., the test is discontinued. A half hour later, the test may be repeated using 0.1 cc. (1 mg.)

The intravenous dosage of edrophonium chloride for children is 0.2 cc. (1 mg.) for those weighing less than 75 lb., 0.2 cc. for children above this weight. The intramuscular dosage is 0.2 cc. or 0.5 cc., according to weight. Intramuscular dosage is 1 cc. for adults. If the subject is hyperreactive, the test may be repeated in half an hour, using 0.2 cc. False-positive tests can be avoided through the use of a placebo injection of saline solution prior to the test, and comparing. The test may be used in crisis when the history is vague or unattainable and the physical examination inconclusive.

Osserman, K. E., et al., *J.A.M.A.*, 160:153-155, 19

Identification of Urinary Sugars

If the Benedict test (5 minutes at 100°C.) is positive, the next question is whether the reducing substance is glucose. The simplicity and convenience of the 'Tes-Tape' method are as striking as its specificity. One has merely to dip a short piece of tape into the urine, remove, and allow to air-dry for one minute. The amount of glucose is indicated both in percentage and in the "plus" system.

If glucose is absent, Benedict's test with the water-bath maintained at 55° C. for 10 minutes will differentiate galactose and lactose (both of which give negative results) from pentose (except ribose) and fructose which give positive reactions. Since galactosemia is of interest primarily in infants and lactosuria in lactating women, these two are not likely to be confused. The non-sugar-reducing substances give a negative Benedict test with the 10 minute water bath at 55° C., and the separation of pentose from fructose can be accomplished by fermentation of the fructose with baker's yeast.

Physician's Bull., 21:151-152,1956.

Prevention of Acute Glomerulonephritis

Only certain strains of Group A streptococci are capable of initiating acute nephritis. After infection with most of these strains, the attack rate of acute nephritis is considerably higher than that of rheumatic fever. As a result, epidemics of nephritis in families and in small communities have frequently been observed. Such epidemics, according to Rammelkamp, can be prevented. He recommends that, for persons coming into intimate contact with a patient with acute nephritis, proper cultures should be made, and those shown to harbor beta-hemolytic streptococci should receive an injection of 600,000 units of benzathine penicillin. The causative organism can thus be limited in its spread within the family or other population group. Only in this way, can the incidence of nephritis be greatly reduced. He considers it entirely reasonable that acute nephritis be made a reportable disease so that the public health authorities may assist in the development of effective control measures.

In prevention of *recurrent* attacks of nephritis, Rammelkamp considers it advisable to place patients with signs of chronic nephritis on a prophylactic regimen similar to that for the prevention of rheumatic recrudescences.

Patients in whom acute glomerulonephritis develops after streptococcal infection usually recover completely and fail to show an increased susceptibility to recurrent attacks. In fact, they may even be less susceptible to acute nephritis than normal persons, because their serum usually exhibits type-specific antibodies, which may persist for several years.

Editorial, *New England J. Med.*, 254:79-80,1956.

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Medihaler-Epi replaces injected epinephrine in emergencies in which respirations have not ceased; provides rapid relief in acute food, drug, or pollen reactions (including urticaria, bronchospasm, angioneurotic edema, edema of glottis, etc.). In most instances one inhalation suffices.

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LOS ANGELES

Evaluation of Drugs For Protection Against Motion Sickness

A total of 16,920 subjects comprised this experiment. Three compounds — cyclizine (Marezine) HCl, meclizine (Bonamine) HCl, and promethazine (Phenergan) HCl—were tried in three different dosages, making a total usage of 29 drugs and a placebo.

Of the effective agents, 50 mg. of meclizine, one to three times daily, 50 mg. of cyclizine, t.i.d., and 25 mg. of promethazine, t.i.d. was significantly more effective than use of other drug regimens.

Seasickness varied inversely with age. Persons quartered fore and aft were more susceptible than those midship. No other effective agent showed a higher incidence of any side-effect than did the placebo.

J.A.M.A., 160:755-760, 1956.

Wolff-Parkinson-White Syndrome

This syndrome is most frequently observed in the later decades of life, but it may occur in infancy. Ectopic rhythms are frequently associated with this abnormal conduction pattern, in the form of paroxysmal auricular tachycardia, paroxysmal auricular flutter and paroxysmal auricular fibrillation.

This syndrome is characterized by a P-R interval of 0.10 seconds or less, a QRS interval of 0.11 seconds or longer, notching or slurring of the first portion of the QRS complex, the presence of Q_2 and Q_3 waves, depression of the ST segment, and a diphasic or inverted T wave. Patterns of this type often demand differentiation from bundle-branch block and myocardial infarction. Ventricular tachycardia may be stimulated.

Pronestyl depresses the fibers in the abnormal muscle bundle and may abolish the pattern. This is true also of exercise.

The syndrome carries no clinical import unless it occurs in an impaired myocardium or in infancy.

Gilbert, N. S., *J. Florida M. A.*, 42:924-925,1956.

ECGs After Forty

After the age of 40, the ECG is an important part of the periodic health appraisal. Examination of 4,000 men employees of an automobile manufacturing plant revealed cardiovascular abnormalities in 360—a significant amount of hypertension, myocardial infarcts, a few cases of congenital and rheumatic heart disease and various other cardiovascular disorders. Almost twice as many of those with an abnormality of the ECG did not know of any defect as compared with those who knew they had a cardiac disorder.

A preliminary study of several hundred men under 40 showed ECG findings to be so rare that the procedure was not felt worth the time and expense involved unless some clinical indication warranted it.

Bielawski, J. G., *J. Mich. State M. Soc.*, 55:542, 1956.

Combination Treatment of Urinary Tract Infection

In such infections with pain and discomfort, Urosulfin was highly satisfactory in relieving within hours, and long before any chemotherapeutic action could control the infection. Its antibacterial action closely parallels the action of the sulfa alone. The causative lesion should be located and definitive treatment given.

Toland, W. J., et al., *J.A.M.A.*, 160:542-543,1956.

Prevention of Burn Accidents

Dangerously flammable clothing fabrics present a serious problem. Children's nightdresses and the garments of elderly women carry additional risk by reason of their design. A recently introduced test for flammability is applicable to the grading of most clothing materials. Satisfactory flame-proofing processes are now available for some of the more dangerous fabrics widely worn by children and elderly women.

Suggested further steps are:

1. A publicity campaign to encourage the owners of all gas and electric fires to attach guards to them.

2. The adoption of a standard test for flammability grading of all fabrics; this grade indicated by an appropriate mark when the fabrics are offered for sale.

3. A test for undue flammability should be undertaken as standard practice in the experimental stages of all future new materials. If any such materials are found to be exceptionally hazardous, they should not be mass-produced in this condition.

4. Where chemicals known to be dangerous are employed in flame-proofing procedures, the possible hazard to the wearer of the garment should be borne in mind, and recognized tests for toxicity should be carried out before the material is put on the market.

5. As soon as satisfactory flame-proofed clothing materials become generally available, every effort should be made to encourage their use in place of unproofed fabrics of the same kind.

Colebrook, L., et al., *Brit. M. J.*, 4980:1379-1386, 1956.

Healing of Ulcer of Forty-four Years Standing

A patient, 80 years of age, was referred to the author. He had had an operation for the removal of his right kidney 44 years ago, soon after which he developed an ulcer on his calf which kept up a copious watery discharge. Six months previously, he had injured his right ankle and developed a large varicose ulcer with considerable edema around it. This was treated with weekly applications of elastic adhesive bandage to the whole leg. After the seventh application, the varicose ulcer was healed, and the primary ulcer was reduced to one fourth its original size—being about 1 inch in diameter. Seven more bandages were applied and the primary ulcer of 44 years duration is now also completely healed.

Laver, C. H., *Brit. M. J.*, 4977:1240,1956.

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Surgical Management of Hiatus Hernia

The term, esophagogastric hernia, is preferred to that of sliding or pulsion hiatus hernia because it describes the essential feature, i.e., upward herniation of the esophagogastric junction. Reflux of gastric contents into the esophagus complicates the prognosis in esophagogastric hernia.

The principal preoperative symptoms of hiatus hernia of both types are pain, bleeding, heartburn, abdominal or thoracic pressure sensation and dysphagia.

Asymptomatic hiatus hernia of either type is not an indication for operation. Esophago-gastric hernia with mild symptoms and no reflux also does not require surgery. Surgical repair is indicated in symptomatic esophago-gastric hernia when reflux is seen on x-ray examination. In paraesophageal hernia, the severity of symptoms determines the necessity for operation.

Phrenicectomy occasionally is useful as a palliative procedure.

The transthoracic approach is preferred for definitive operative repair. The technique of Allison which replaces the cardia in its normal position and fixes the ligaments offers the best chance for cure.

At the Mount Sinai Hospital, in a period of four years, 42 patients with hiatus hernia were operated upon: 20 paraesophageal, 15 esophago-gastric, 4 combined, and 3 unclassified.

Operative mortality in hiatus hernia is low. In 40 definitive operations, there was one mortality.

The chance for permanent cure of hiatus hernia is excellent if the operation is performed before complications occur.

Lyons, A. S., et al., *J. Mt. Sinai Hosp.*, 23:118-128, 1956.

Diagnostic Usefulness of Peritoneoscopy

The chief indications for peritoneoscopy are unexplained ascites, liver disease and epigastric masses. Lesions of the female pelvic organs are examined better by culdoscopy.

Abdominal distention from intestinal obstruction and acute abdominal disease are absolute contraindications. Lesions in the retroperitoneal structures, such as the pancreas, aorta, kidneys or retroperitoneal nodes, cannot be seen. Peritoneoscopy in these conditions is of no value unless liver metastases are being sought.

Peritoneoscopy is a simple, convenient and safe procedure to which patients readily consent.

It has been of particular value for patients in whom a prolonged prothrombin time precludes blind needle biopsy of the liver. In such patients, direct inspection of the liver will usually confirm or exclude the suspected diagnosis.

Carey, Jr., J. B., *Minnesota Med.*, 39:413-414,1956.

Surgical Alleviation of Parkinsonism

It is not suggested that either or both surgical occlusion of the anterior choroidal artery or chemopallidectomy should become standard in the treatment of Parkinsonism. It has been demonstrated that the most advanced cases and those most disabling are potentially amenable to surgical therapy. It has also been shown that relief of rigidity, tremor, and deformity can be achieved without sacrificing motor power.

It is concluded that further efforts are justified to improve these and other surgical techniques ai ned the mesial globus pallidus, to im prove methods of selection of pa tients and to lessen the r sks operation. The gravity of th pro lem and the present deficier cies medical therapy, as well as the re sults of this and other studies, ap pear to justify intensive and studi ous efforts in this direction.

Addendum. In the year since th paper was prepared, the num ber patients treated by chemopallidect my has been increased to 125. Goo results have been obtained in 70 Moreover, the additional period follow-up of early successful cas of occlusion of the anterior choroid artery and chemopallidectomy ha demonstrated that the good resul are enduring.

Cooper, I. S., et al., *J.A.M.A.*, 160:1444-1447,1956.

Management of Ureteral Stone

In cases with obscure abdomina symptoms, ureteral stone should b considered. The stone may coexi with intra-abdominal lesions.

All stones in the upper two third of the ureter, and some in the lowe one third, are removed surgicall Chills and fever, anurea, or oligur make cystoscopic drainage or surg cal intervention mandatory. A ver small fragment of stone, very nea will almost always pass.

Cystoscopic manipulation, particu larly with stone extractors, may in duce infection and even perforatio of the ureter.

To prevent stone reformation periodic urinalysis is essential an a good urinary output should b maintained, particularly in the sum mer months.

Marquardt, C. R., et al., *Wisconsin M. J.*, 55:6 633,1956.

ernia Through the Diaphragm Infancy

Operation should be carried out soon as the infant is fit. If untreated before the end of the first month, 75% of these patients die. The approach should be abdominal, which allows examination of viscera for other abnormalities; and skin closure only should be carried out if the bowel has "lost its right of domicile." No phrenic nerve crush should be used in an infant unless the defect is very large.

Oxygen *before* and *especially during* operation is as important as are intravenous fluids. The anesthetist must be experienced. Between 1930 and 1948, 38 cases were reported with six deaths.

Hanna, W. S., *Brit. M. J.*, 4979:1343,1956.

Differential Diagnosis of Acute Poliomyelitis

From a review of 717 cases of suspected poliomyelitis, in which a revised diagnosis was made, it is concluded that errors in diagnosing poliomyelitis may be minimized by:

1. A careful history and physical examination.

2. Familiarity with other diseases which may be epidemic at the time; e.g., herpangina, roseola and acute gastroenteritis.

3. Care in the performance of a spinal puncture, and in the examination of the spinal fluid.

Poliomyelitis in its early stages may be indistinguishable from many diseases. Poliomyelitis often confounds the experts until the virus is grown out of stool cultures or until the time serological data can be obtained. The G. P. is not to be expected to supply a diagnosis at once, and he may find it convenient and desirable to seek help.

Papermaster, T. C., *Minnesota Med.*, 39:359-364, 1956.

Treatment of Enterobiasis with One Oral Dose of Promethazine Hydrochloride

Promethazine was given at bedtime, in a single oral dose of 125 mg, to 100 children and adults infested with pinworms. Negative post-treatment cellophane-tape swabs showed 97% of the patients were freed of infection. No true toxicity appeared, and there was no drowsiness the following morning. Five per cent of the patients (4 to 8 years old) had nightmares on the night of medication. (Nightmares are the third most frequent symptom of infestation). Promethazine affords inexpensive, nontoxic, one dose oral treatment for the eradication of pinworms.

Avery, J. L., *J.A.M.A.*, 161:681-683,1956.

Pediatric Anesthesia

Pediatric anesthesia is bec oming specialty within a specialty Man facturers are offering mach nes a equipment to meet the speci al nee of infants and children. In gener open-drop inhalation techn c w continuous oxygen supplie un the mask is the safest. Th e ch should receive premedicatio n to lay fear and diminish secreti ns. A esthesia should be only as deep the surgery requires, but it must kept below the vomiting level. T patient should be on his side i n Tre delenburg position when be transported from the operating ro to the ward and until awake. Bo fluids must be conserved, and flu loss and electrolytes should be r placed. Pediatric anesthesia shou be based upon "simplicity and c stant vigilance."

Threlkel, F. H., *Kentucky M. J.*, 54:414-418,19

Pulmonary Tuberculosis in Childhood

Management of each phase of t erculosis in childhood must be c sidered separately. Whether or antimicrobial agents are of value the treatment of uncomplicated p mary pulmonary tuberculous d ease is not known, but their use progressive primary pulmonary t erculosis is generally accepted.

Kendig, Jr., E. L., *Tri-State M. J.*, 4:16-17,1956.

Milk Allergy in Pediatric Practi

In private pediatric practice, 3, infants were studied with a view milk allergy, many referred physicians as probably allergic, by the mother on suspicion of all gy. An incidence of 0.3% milk all gy was found.

Collins-Williams, C. J., *Pediat.*, 48:39-47,1956.

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INDICATIONS: Postoperative and post-partum thrombophlebitis, intravascular clots, pulmonary embolism, acute embolic and thrombotic occlusion of peripheral arteries, recurrent idiopathic thrombophlebitis, heart disease with auricular fibrillation and mural thrombi, and as an adjunct in coronary occlusion and myocardial infarction.

DOSAGE: For adults, an initial single dose of 75 mg. For maintenance, 5 to 10 mg. daily, determined by prothrombin clotting time.

SUPPLIED: White scored tablets, 10 mg. each, and red scored tablets, 25 mg. each, bottles of 25 and 100.

Complete literature to physicians on request

1. Pollock, B. E.: JAMA 159:1094 (Nov. 12, 1955).
2. Shapiro, S. and Gordon, S. M.: Scientific Exhibit, AMA, 1955.
3. Shapiro, S.: The Surgical Clinics of No. America 36:1 (April, 1956).

*Manufactured under license from Wisconsin Alumni Research Foundation, U.S. Pat. No. 2,427,578. Other patent applied for.

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"Abdominal Migraine" in Children

Migraine, by derivation and usage, means a symptom involving one side of the head. The child cannot have it in the abdomen. This is, perhaps, a small matter; but one can argue that improper usage of this sort tends further to confuse what is already a far from clear picture.

Kempton, J. J., *Brit. M. J.*, 4977:1238,1956.

Acute Osteomyelitis

Modern chemotherapy has practically removed the danger of death from acute osteomyelitis. One is now concerned with the morbidity rather than the mortality. Delay in initiating treatment, or in the timing of drainage, if indicated, carries the danger of avascular necrosis of bone, chronic abscess formation within the bone, and the possibility of periodic reactivation of the infection throughout life.

Three out of every four cases diagnosed early and treated energetically resolve completely, leaving neither pathological nor surgical blemish. If timely steps are taken to evacuate an abscess under tension, and so prevent avascular necrosis of bone, the vast majority of all affected children are permanently cured of the general infection and all of its local manifestations.

Kessel, A. W. L., *Brit. M. J.*, 4979:1352-13[illegible]3,195[illegible]

Fistula-in-Ano in Infants

This entity is so uncommon that the literature is scant. Bacon, in 1949, found only 39 cases in infants in a series of 3,100 patients having abscess and fistula.

It is curious that only male infants seem to be affected by this condition. All fistulas-in-ano reported have been simple, direct, lateral tracts.

Feigenbaum, H. A., *New York State J. Med.*, 56:12 1956.

Peptic Ulcer: Diagnosis and Treatment

by Clifford J. Barborka, M.D., D.Sc. F.A.C.P., Northwestern University Medical School, and E. Clinton Texter, Jr., M.D., Northwestern University Medical School. 30 illustrations. Little, Brown & Company, Boston, Toronto. 1955. $7.00

The book is based largely on the experience of the authors. It is pleasing to see that no great emphasis is placed on worry as a causative factor. Diagnosis, management of the active ulcer, prevention of recurrence, and balance of medical and surgical measures are given in so rational a manner as to make the book worthy of high endorsement.

Preparing for Motherhood

A Manual for Expectant Parents. By Samuel R. Meaker, M.D., Boston University School of Medicine. The Year Book Publishers, Chicago, Ill. 1956. $2.00

"I start with a little talk to those often forgotten men, prospective fathers." From this "start" to the concluding chapter, "The New Member of the Family," this book is full of sense.

Treatment of Heart Disease: A Clinical Physiologic Approach

by Harry Gross, M.D., F.A.C.P., Columbia University College of Physicians and Surgeons; and Abraham Jezer, M.D., Columbia University College of Physicians and Surgeons. W. B. Saunders Company, Philadelphia, London. 1956.

The authors express their intention to reach the general physician who, "imbued with the physiologic point of view, may more readily understand the symptoms and clinical course of his patient." The book has seven parts and an appendix. The first part is devoted to the physiology of the organ; then there are sections on degenerative diseases, inflammation or results of infection, congenital anomalies, effects of pregnancy and surgery, effects of metabolic disturbances and mineral deficiencies on heart disease, and emotional disturbances and the problem of rehabilitation. The roles of older and newer drugs in the preventive, curative and supportive treatment of heart disease have been given elaborate consideration, as have the means of diagnosis—simple and complicated—and the surgical treatment of certain heart diseases.

The Morphology of the Human Blood Cells

by L. W. Diggs, M.D., Director Medical Laboratories, University of Tennessee, Dorothy Strum, Memphis Academy of Arts, and Ann Bell, University of Tennessee. W. B. Saunders Company, Philadelphia and London. 1956. $12.00

Emphasis is placed on the characteristics of individual cells and on differential morphology rather than on diseases of the blood and blood-forming organs. Except for several of the larger plates, the paintings are reproduced with a magnification of 1800. The color plates are supplemented by black-and-white and color photographs, ink drawings, tables and descriptions—the whole constituting an excellent method for imparting information on this important subject.

Fifth Annual Report on Stress 1955-56

edited by Hans Selye, M.D. Institut de Medecine et de Chirurgie experimentales, Universite de Montreal, and Gunnar Heuser, M.D., Institut de Medecine et de Chirurgie experimentales, Universite de Montreal. M.D. Publications, Inc., New York, N. Y. 1956. $20.00

These volumes are published with the hope that they will help to correlate all pertinent facts on stress. Stress is here defined as the sum of all nonspecific changes caused by function or damage—as fundamentally a physiologic response.

Among the drugs classified as "anti-stress" are salicylates, phenyl butozone, barbiturates, morphine, chlorpromazine, and the follicu-

loids, of which estradiol is a con
cuous example.

Among the subjects dealt with
special articles are: Primary Ald
steronism—A New Clinical Enti
Hormonal Influences on Inf amm
tion and Detoxication, Stress a
Catechol Hormones, Adrenal I
fluences Upon the Stomach ar d Ga
tric Response to Stress, The Role
the Adrenal Cortex in the Etiolo
of Disease, Adrenocortical Sec
tion and Factors Affecting Th at S
cretion, Neuroscretion, Observati
on Psychiatric Stress in Infancy, a
Cortisone in Relation to Lymph
Tissue and Immunity.

Of the three parts, part II is d
voted to Special Physiology a
Pathology of Stress in 1955; part I
to entertaining and instructive "A
terthoughts" on Endothyolomyosis
and Experimental Model of the "R
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Every doctor who values Ca
non's "Wisdom of the Body" will
delightfully instructed by a page-b
page study of this book.

Proceedings Round Table on Lysergic Acid Diethylamide and Mescaline in Experimental Psychiatry

*Annual Meeting American Ps
chiatric Association, Atlantic Ci
May 12, 1955, edited by Louis Ch
den, M.D., University of Californ
Medical School at Los Angel
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N. Y. 1956. $3.00*

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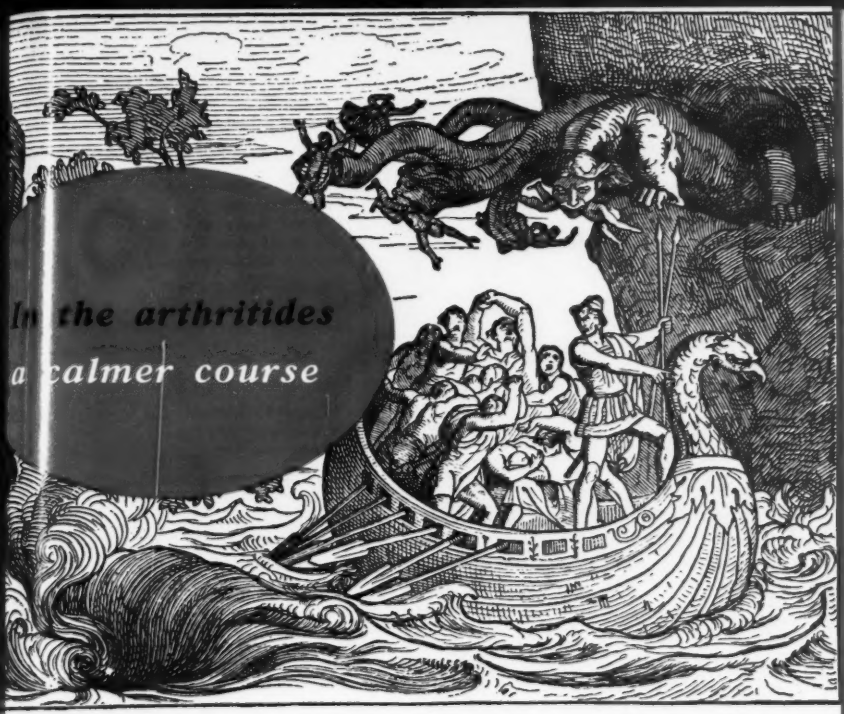
induced by giving these two agen
might promote understanding
some of the mysteries of psychiatr
some investigations were ma
which are reported in this book.



Ulysses between Scylla and Charybdis—Bettmann Archive

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One study concludes: "Salicylate potentiates the greatly reduced amount of cortisone present so that its full effect is brought out without evoking undesirable side reactions."[1]

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each tablet contains:

Cortisone acetate	2.5 mg.
Sodium salicylate	0.3 Gm.
Aluminum hydroxide gel, dried	0.12 Gm.
Calcium ascorbate. . . . (equivalent to 50 mg. ascorbic acid)	60.0 mg.
Calcium carbonate . . .	60.0 mg.

[1]*Busse, E.A.: Treatment of Rheumatoid Arthritis by a Combination of Cortisone and Salicylates. Clinical Med.* 11:*1105*

*U.S. Pat. 2,691,662

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Upjohn Co., The	1060
U. S. Vitamin Corp.	1118
Warner-Chilcott Laboratories	1048
Wilco Laboratories	1083